

ANNUAL REPORT
OF
THE MINES BRANCH
OF THE
DEPARTMENT OF PUBLIC
WORKS
OF THE
PROVINCE OF ALBERTA
1919



EDMONTON:
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1920

EDMONTON, FEBRUARY 23, 1920.

TO THE HONORABLE A. J. McLEAN,
Minister of Public Works.

SIR,—I have the honour to submit herewith the report of the Mines Branch of the Department of Public Works for the year 1919, together with various tables of statistics compiled under the direction of the Chief Inspector of Mines.

Respectfully submitted,

L. C. CHARLESWORTH,
Deputy Minister.

EDMONTON, FEBRUARY 21, 1920.

L. C. CHARLESWORTH, Esq.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—In accordance with the provisions of The Mines Act, I herewith submit the report of The Mines Branch for the year ending December 31, 1919.

Amendments were made to The Mines Act at the 1919 Session of the Legislature providing that it is not necessary for a person holding a first class certificate to be placed in charge of mines where the coal is extracted by removing all the overlying strata. Provision was also made whereby all wages earned by any person employed in or about a mine, shall be paid on the first Saturday after the twelfth day and the first Saturday after the twenty-sixth day of each month, instead of on the first and third Saturdays as formerly. Another amendment which was made provides that it is not necessary for the committee appointed by the employees to inspect a mine, to be, at the time of such appointment, employed as practical miners. A further amendment took away from the employer the right to retain from the monies due any person, a sum to cover doctors' fees. This was done in order to make The Mines Act in this respect consistent with The Workmen's Compensation Act, 1918.

The explosive known as Miner's Friend No. 7, was added to the permitted list of explosives on March 29, 1919. The composition of this explosive is as follows:

Ingredients.	Parts by Weight	
	Not more than	Not less than
Nitro-glycerine	9.5	7.5
Nitrate of Ammonia	70	66
Wood-meal (dried at 100°C.)	9	7
Chloride of Sodium	16	14
Moisture	2	..

During the year 21 persons lost their lives as compared with 22 during the year 1918. Of these fatal accidents, 3 occurred above ground and 18 below ground. 11 persons were seriously injured above ground and 45 below ground, while 10 persons were slightly injured above ground and 44 below ground.

In addition to the inspections which have been made from time to time of the different mines by the District Inspectors, all fatal and serious accidents have been investigated and all inquests attended.

Samples of mine air have been taken throughout the year by the District Inspectors in addition to tests made by them with approved gas detectors.

2424 safety lamps of the Wolfe type, 2372 electrical portable lamps of the Edison type, 550 of the Wico type and 35 of the Ceag type are in use. It is gratifying to note that the number of electric lamps in use shows a considerable increase over the year previous.

Training in connection with Mine Rescue and First Aid Work has been carried on satisfactorily throughout the year, there being three mine rescue cars and six stations at present in operation. On July 1, 1919, a competition in Mine Rescue and First Aid Work was held under the auspices of the Rocky Mountain Branch of The Canadian Mining Institute, at Calgary. A further competition in Mine Rescue Work was held at Drumheller on July 29, 1919, under the auspices of the Red Deer Valley Coal Operators' Association. Fuller particulars of these competitions are given in the attached report of the Superintendent of Mine Rescue Stations. On March 1, 1919, the administration of all Mine Rescue and First Aid Work was taken over by The Workmen's Compensation Board.

There were 276 coal mines, 1 copper ore and 2 shale mines in operation during the year, 47 of which were opened, 11 re-opened and 34 abandoned. In addition to those abandoned 12 mines were temporarily closed.

Information was laid in 22 cases for contraventions of the provisions of The Mines Act, and twenty-one convictions obtained.

During the year Mr. Robert J. Lee resigned his position as District Inspector of Mines, Edmonton, to take a position as manager at the Monarch Mine operated by the North American Collieries, Ltd. Mr. William Shaw, District Inspector of Mines, Calgary, was transferred to the Edmonton District and Mr. David Shanks, formerly manager of the mine operated by the Brazeau Collieries, Ltd., was appointed District Inspector of the Calgary district.

The number of persons employed during the month of December, 1919, was 12,027, being an increase of 1,818 over the number employed during the month of December, 1918.

The question of widening the market for Alberta coal is still receiving a great deal of attention, although less coal was shipped to points outside the Province during the year 1919 than during the previous year. Notwithstanding the increased consumption of coal in Western Canada during the last few years, development in the coal mining industry has been carried on to such an extent that the amount necessary to supply all requirements is only about fifty per cent. of the possible production.

The production during the year 1901 for the whole of the North-West Territories was 346,649 tons, while in 1918 it had increased to 6,148,620 tons for Alberta alone. The amount of coal produced in the Province during the year 1919 was 5,022,412 tons or a reduction of 1,126,208 tons below that produced for 1918. It is estimated, however, that approximately one million tons of the production in 1918 was not consumed during that year but was carried over in stock until the year 1919.

Notwithstanding the large increase that has taken place in the production of coal in Alberta during the last few years, there were approximately two and one-half million tons imported from the United States during the year 1919 into territory which should undoubtedly be supplied entirely with Canadian coal. This would therefore mean that the possible market in Canada for coal produced in the Provinces of Alberta and Saskatchewan is from 7,500,000 to 8,000,000 tons per year.

During the month of December, 1919, 780,832 tons were produced in Alberta alone, which means that the mines in operation are capable of producing over nine million tons per year with the present labor, development, equipment and plant. It will, therefore, be seen that we are in a position to produce over four million tons per year more than we apparently can find market for at the present time.

In addition to the market referred to as being available in Canada, there is also a certain amount of market to be found in that portion of the United States immediately south of the International Boundary, although the high cost to the consumer appears to prevent this being done to any great extent at the present time.

In order to obtain and hold all the market available, it is necessary that the greatest attention be paid to the preparation of the product and that it be supplied to the consumer at the lowest possible price.

Unfortunately, during the winter months when the demand for coal is greatest, the difficulties incidental to mining and transportation are also greatest and we have experienced during the last few months, a situation where the mines were producing less than fifty per cent. of what they were capable of doing at a time when there was actual suffering for want of fuel.

The question of the preparation and screening of coal requires greater attention than it has had in the past. A large number of complaints have been received from consumers that a great deal of foreign matter is mixed amongst the coal shipped from certain Alberta mines. These complaints have in many instances been investigated, and in practically every case were found to be justified. While more care should be exercised by the miner at the working face as to the condition in which he loads his coal into the mine car, this does not relieve the mine operator of the responsibility of seeing that all coal is shipped in as satisfactory a condition as possible. During the period of the year when there is no great demand for coal, better attention is, as a rule, given to preparation at certain mines, but when severe weather sets in and causes an abnormal demand, the coal does not get the same attention and the consequence is that the consumer becomes dissatisfied and looks elsewhere for his next supply.

The increase in the price of coal to the consumer during the last few years has had a tendency to restrict the market for Alberta coal. While in 1915 domestic coal produced in Alberta was selling at \$9 per ton in Winnipeg, today it is selling at from \$12 to \$14 per ton. This increase in price is accounted for principally by the enormous increases in wages and cost of material which have taken place during the last three or four years.

During the year 1919, 2,395,290 tons of domestic coal produced in Alberta, were sold for which an expenditure of \$6,126,120.46 for wages was made, making a total cost throughout the Province of \$2.55 per ton.

During the month of December in the same year, 451,016 tons of domestic coal were sold for which an expenditure for wages of \$1,031,112.78 was made, making a cost per ton during that month of \$2.28 while during the month of April 85,478 tons were sold for which an amount of \$308,025.21 was paid in wages, making a cost per ton for that month of \$3.60.

It will therefore be noted, that the cost per ton for production varies considerably according to the amount of coal produced, and that owing to the intermittent manner in which the mines are operating, the cost of production and consequently the cost to the consumer is very greatly increased. In order to enable the mines to operate more steadily and thus reduce the price to the consumer, the market must either be increased or the production reduced.

By comparing the statistics prepared by the different provincial governments, it will be noted that the average amount of coal produced per mine in British Columbia during the year 1918 was 92,106 tons; in Nova Scotia, 89,516 tons, while in Alberta it was only 19,396 tons. This means that in Alberta there are approximately five times as many plants, office staffs and sets of officials as there are in the other provinces for the same production. This has also a considerable bearing on the conservation of coal. With the increased number of mines which are in operation there must necessarily be a larger percentage of coal which cannot be recovered. Since 1905 six hundred mines have been opened and as there are at present only 276 mines in operation, 324 or 54 per cent. of the mines opened in the last fifteen years have been closed and abandoned.

During the same period 100,484,038 tons of coal have been affected by mining operations. Of this amount 47,227,498 tons were extracted leaving a further 53,356,540 tons which have been developed, one half of which may possibly be recovered in the future, leaving a total of 26,628,770 tons which is lost beyond any chance of recovery. It has also been conservatively estimated that \$37,110,775 have been expended in connection with coal mining in the Province since the year 1905, \$9,813,500 or 26 per cent. of which was invested in mines which have been completely abandoned.

It is also significant that of the 324 mines abandoned since 1905 so far as can be ascertained from Government records, only three of those were abandoned because all the available coal had been extracted from the properties.

On June 4, 1919, a Commission composed of representatives of different interests, was appointed for the purpose of making inquiry into and upon all matters pertaining to or concerning the coal mining industry and the following is a copy of the report made by this Commission to His Honour the Lieutenant Governor-in-Council, on December 23, 1919:

REPORT OF COAL-MINING INDUSTRY COMMISSION.

TO HIS HONOUR

THE LIEUTENANT GOVERNOR IN COUNCIL.

The undersigned Commissioners appointed by Your Honour by Commission bearing date the fourth day of June in the year of Our Lord One Thousand Nine Hundred and Nineteen, in accordance with the powers contained therein beg leave to report that they have held sessions at Edmonton, Calgary, Drumheller, Wayne, Edson, Lethbridge, and Blairmore, and have examined seventy-four witnesses, being in the estimation of your Commissioners, a fair representation of all persons interested in the Coal-mining Industry, including the general public.

Your Commissioners have made inquiry into and upon all matters pertaining to or concerning the Coal-mining Industry of the Province of Alberta, and have considered various resolutions, correspondence and exhibits, which have been submitted bearing on the questions under investigation. All of these are herewith respectfully presented for your consideration, together with a copy of the evidence taken.

Your Commissioners herewith submit their report, which has been made from the evidence submitted, and are of the opinion that the following matters have an important bearing on the Coal-mining Industry.

EXTENSION OF MARKETS.

1. Many mines only operate one-half of the year or less. If more continuous operation is obtained, the result will be a reduction in the price of coal to the consumer and steadier employment to the workman.

WORKING AGREEMENTS AND METHOD OF HANDLING DISPUTES.

2. Provisions for making working agreements, the settling of disputes and such matters that employer and employee deal with, are not satisfactory.

HOUSING CONDITIONS AND SANITATION.

3. At many mines the living and housing conditions, and matters pertaining to health and sanitation, are not in a satisfactory condition.

EDUCATIONAL FACILITIES.

4. In some camps the educational facilities are inadequate.

LOSS OF CAPITAL INVESTMENT.

5. Much capital expenditure has been lost on account of failure to obtain reliable information about properties and marketing conditions before operations are commenced; and also owing to lack of sufficient capital being provided to carry on operations to a successful issue.

LOSS OF MARKET.

6. A considerable loss of market has been sustained owing to:
- (a) Cessations of work;
 - (b) Shortage of railway cars;
 - (c) Misrepresentation as to size and quality of coal.

SUB-LEASING.

7. Sub-leasing of coal leases issued by the Federal Government has the effect of unnecessarily increasing the cost of coal to the consumer.

FREIGHT RATES.

8. Existing freight rates militate against the marketing of Alberta coal in Manitoba and the United States.

PURCHASING, MINE EQUIPMENT AND POWER.

9. Mine equipment and power, under the present system, are too expensive.

CONSERVATION OF COAL.

10. Large quantities of coal have been and are being lost through improper mining methods, as well as through cessations of work.

HOSPITALS.

11. In many mining camps the hospital facilities are inadequate.

As the natural resources are not vested in the Crown in the right of the Province, but in the Crown in the right of the Dominion, or in private ownership, it is difficult for your Commissioners to determine what should be done with many of the questions which have been brought before them. Your Commissioners are of the opinion that, for the best interests of the Mining Industry in this Province, steps be taken at as early a date as possible to have the natural resources vested in the Crown in the right of the Province.

Your Commissioners further submit for your consideration the following recommendations, and unanimously recommend that the same be provided for, as far as possible, by legislation at the coming session of the Legislature:

RECOMMENDATIONS.

1. (a) That employees be required to use every effort to see that all coal is mined properly, and free from impurities, so that the best product will be obtained from the working face.
 - (b) That employers be required to see that all coal is properly prepared and graded before shipment.
 - (c) That railway cars are properly cleaned before being loaded.
 - (d) That better facilities for more prompt dispatch of cars from the mines to the point of consumption be obtained.
 - (e) That all invoices for coal sold, either by owners or dealers, shall have inserted on them the size and kind of screen over or through which such coal passes, and the name of the mine from which the coal is supplied.
 - (f) That in order to get correct weights, better provision be made for the taring of railway cars.
 - (g) That steps be taken to establish testing stations in different Provinces, particularly in Manitoba, so that the buying public may be given information as to the uses and values of different coals.
 - (h) That a complete system of advertising Alberta coal be undertaken.
 - (i) That attention be given to the question of storage of coal by both consumer and dealer.
2. That a permanent Commission be appointed and given power by legislation to make working agreements and provide for the settlement of disputes.

3. That living and housing conditions and matters pertaining to health and sanitation be dealt with by the said Commission.

4. That the said Commission co-operate with the Department of Education with a view to seeing that satisfactory educational facilities are provided for all children of school age.

5. That before mining operations are commenced, the question of the advisability of opening a mine in any particular field, as well as the question as to the amount of capital required to open in that field, be referred to and approved by the said Commission, and that the administration of the regulation passed by Order-in-Council P. C. 2303, by the Federal Government, a copy of which is herewith attached, be vested in the said Commission.

6. That all matters pertaining to loss of market be placed under the jurisdiction of the said Commission.

7. That sub-leasing of coal lands, leased by the Federal Government, be prohibited.

8. That the services of an expert be obtained to investigate the question of freight rates, including the question of a preferential rate on slack coal, and a reduced rate on coal during the summer months previous to the movement of grain, and that the report of such investigation be submitted to the said Commission, with a view to bringing the facts before the Railway Commission for adjustment.

9. Your Commissioners are of the opinion that considerable saving would be attained if owners would establish some central purchasing agency, thereby standardizing equipment; also that a considerable saving would be attained if the power used were obtained from central power plants located in the various fields. The carrying out of these suggestions, in the opinion of your Commissioners, would decrease the cost price of coal, and would not only be a saving to the consumer, but, in addition, would tend to increase the market.

10. As this Province has within its borders the largest known coal resources in the world, the conservation of this heritage should be zealously guarded. Your Commissioners therefore recommend that you obtain authority from the Federal Government for the same Commission to be given full powers for the safeguarding of this national asset.

11. That districts be formed, and proper hospital facilities be provided, in the various mining fields.

12. That legislation be enacted at the coming session, making provision for the appointment of a Commission which would be representative of—

- (a) Owners;
- (b) Workmen;
- (c) Consuming Public;
- (d) Provincial Government.

That such Commission, in addition to the matters above mentioned, have such authority as may be given to it from time to time by Regulation.

That such Commission also be made responsible for the proper equipment and running of mines to ensure safety.

Evidence has been submitted with respect to Old Age Pensions and Compulsory Health Insurance, but your Commissioners have not obtained sufficient evidence to reach a final conclusion, and recommend that the matter be further investigated.

Dated at Edmonton this twenty-third day of December, A. D. 1919.

JOHN T. STIRLING, (*Chairman*).

WALTER SMITTEN.

JOHN LOUGHRAN.

W. F. McNEILL.

HARVEY SHAW.

Extract from Order-in-Council P. C. 2303, dated the twenty-first day of September, A. D. 1918, being the Regulation referred to in section 5 of the Recommendations:

"The lessee shall, before opening any mine on the lands described in the lease, and before extracting any coal therefrom, submit to the Minister plans and specifications showing in detail the manner in which it is proposed to open up, develop and operate such mine, and if the location contains more than one seam of coal, detailed information shall be furnished as to the particular seam which it is proposed to develop. No work shall be commenced for the recovery of coal, and no coal shall be extracted until such plans and specifications have been approved by the proper officer of the Department. The procedure to be adopted in opening up and operating a mine on the lands leased, as well as the particular seam of coal which shall first be operated, shall at all times be in accordance with the provisions of regulations duly approved by the Minister, and failure to comply with the requirements shall render the lease subject to cancellation in the discretion of the Minister."

The following pages contain various tables of statistics in connection with the coal mining industry.

Your obedient servant,

JOHN T. STIRLING,

Chief Inspector of Mines.

The following tables show the quantities in tons of coal entered for consumption during the years 1917, 1918 and 1919 through ports in the Provinces of Manitoba, Saskatchewan and Alberta, and including the ports of Fort Frances, Fort William and Port Arthur.

BITUMINOUS.

	1917	1918	1919
January	289,379	.....	308,067
February	116,267	.....	124,636
March	154,640	.....	135,669
April	79,851	.....	64,004
May	143,116	.....	127,500
June	161,843	.....	86,382
July	300,670	.....	205,788
August	368,285	.....	230,505
September	233,043	.....	149,521
October .....	.....	.....	176,135
November .....	.....	.....	161,843
December .....	.....	.....	151,949
Total	1,847,094	2,240,447	1,921,999

ANTHRACITE.

	1917	1918	1919
January	3,278	.....	20
February	5,333	.....	.....
March	2,842	.....	398
April	78	.....	19,819
May	51,863	.....	43,410
June	89,056	.....	20,192
July	89,665	.....	54,008
August	65,231	.....	80,624
September	59,041	.....	121,120
October .....	.....	.....	24,459
November .....	.....	.....	41,127
December .....	.....	.....	62,336
Total	366,387	318,594	467,513

The figures showing importation for the year 1917 are for nine months ending September 30, no figures being available for the last three months of the year.

No figures are available showing the amount of coal imported by months during the year 1918.

ANNUAL CONSUMPTION OF COAL IN THE DOMINION OF CANADA.

The following table is taken from a report issued by the Department of Mines, Ottawa, for the year 1918.

Calendar Year	Canadian		Imported		Total	Per Capita
	Short Tons	%	Short Tons	%		
1886	1,595,950	45.9	1,884,161	54.1	3,480,111	0.758
1887	1,848,365	45.7	2,192,260	54.3	4,040,625	0.871
1888	2,013,925	37.8	3,314,353	62.2	5,328,278	1.137
1889	1,992,988	44.4	2,490,931	55.6	4,483,919	0.946
1890	2,360,196	47.8	2,581,187	52.2	4,941,383	1.031
1891	2,606,490	46.7	2,980,222	53.3	5,586,712	1.153
1892	2,464,012	44.4	3,082,429	55.6	5,546,441	1.133
1893	2,823,187	47.6	3,110,462	52.4	5,933,649	1.198
1894	2,743,376	48.5	2,917,818	51.5	5,661,194	1.130
1895	2,467,109	45.7	2,933,752	54.3	5,400,861	1.066
1896	2,639,055	45.1	3,206,456	54.9	5,845,511	1.140
1897	2,799,077	47.3	3,124,485	52.7	5,924,462	1.143
1898	3,023,079	48.0	3,274,981	52.0	6,298,060	1.200
1899	3,631,882	47.0	4,092,361	53.0	7,724,243	1.454
1900	3,989,542	47.8	4,361,563	52.2	8,351,105	1.561
1901	4,912,664	50.5	4,810,213	49.5	9,722,877	1.810
1902	5,376,413	51.0	5,165,938	49.0	10,542,351	1.927
1903	6,005,735	52.2	5,491,870	47.8	11,507,605	2.055
1904	6,697,183	49.2	6,909,651	50.8	13,606,834	2.346
1905	7,032,661	48.0	7,343,880	51.1	14,376,541	2.362
1906	7,927,560	51.7	7,398,906	48.3	15,326,466	2.425
1907	8,617,352	45.0	10,549,503	55.0	19,166,855	2.947
1908	9,156,478	47.3	10,195,424	52.7	19,351,902	2.820
1909	8,913,376	47.9	9,711,826	52.1	18,625,202	2.682
1910	10,532,103	50.2	10,438,123	49.8	20,970,226	2.960
1911	9,822,749	40.5	14,424,949	59.5	24,247,698	3.384
1912	12,385,696	46.0	14,549,104	54.0	26,934,800	3.596
1913	13,450,158	42.6	18,132,387	57.4	31,582,545	4.071
1914	12,214,403	45.5	14,637,920	54.5	26,852,323	3.325
1915	11,500,480	48.1	12,406,212	51.5	23,906,692	3.015
1916	12,348,036	41.3	17,517,820	58.7	29,865,856	3.669
1917	12,313,603	37.2	20,810,132	62.8	33,123,735	3.962
1918	13,160,731	37.8	21,611,101	62.2	34,771,832	4.047

The following tables, which show the quantities in tons of coal entered for consumption each month during the year 1919 through the ports in the Provinces of Manitoba, Saskatchewan and Alberta, and including the Ports of Fort Frances, Fort William and Port Arthur, have been compiled from information received from the Commissioner of Customs at Ottawa.

BITUMINOUS SLACK

	Manitoba	Saskatchewan	Alberta	Ft. Frances	Ft. William	Pt. Arthur	Total	Total Dominion
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
January	731	...	40	396	18,678	2,273	22,118	191,997
February	1,083	...	30	1	2,325	...	3,439	88,301
March	2,796	50	...	64	6,403	...	9,313	107,426
April	710	...	...	444	10,181	...	11,335	92,950
May	460	102	167	1	9,623	...	10,353	144,451
June	1,779	...	63	798	3,756	...	6,396	190,322
July	1,731	60	150	1,378	24,566	12,148	40,033	290,028
August	1,530	54	207	740	15,422	2,542	20,495	262,998
September	423	...	25	827	6,155	2,795	10,225	250,951
October	3,157	31	140	1,416	6,763	2,125	13,632	319,828
November	5,753	...	42	2,472	8,664	...	16,931	173,192
December	6,177	...	26	2,467	11,483	...	20,153	115,953
Total	26,330	297	890	11,004	124,019	21,883	184,423	2,228,197

BITUMINOUS

	Manitoba	Saskatchewan	Alberta	Ft. Frances	Ft. William	Pt. Arthur	Total	Total Dominion
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
January	1,592	...	...	3,321	222,396	58,640	285,949	1,266,243
February	3,022	...	...	3,200	65,000	49,975	121,197	976,499
March	3,372	...	53	5,444	77,070	40,417	126,356	815,182
April	1,915	38	...	3,817	22,798	24,101	52,669	469,903
May	2,507	...	...	2,572	87,999	24,069	117,147	816,040
June	1,482	...	...	1,478	44,770	32,256	79,986	543,228
July	2,954	466	73	2,121	85,793	74,348	165,755	998,874
August	2,040	468	51	4,667	100,062	102,722	210,010	1,028,043
September	2,498	93	...	3,990	71,412	61,303	139,296	953,026
October	5,905	2	...	4,888	110,859	40,849	162,503	1,035,949
November	8,257	15	30	4,439	107,023	25,148	144,912	719,056
December	5,446	46	94	6,225	83,659	36,326	131,796	511,012
Total	40,990	1,128	301	46,162	1,078,841	570,154	1,737,576	10,127,965

ANTHRACITE

	Manitoba	Saskatchewan	Alberta	Ft. Frances	Ft. William	Pt. Arthur	Total	Total Dominion
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
January	20	...	...	...	...	...	20	399,676
February .....	...	...	...	...	...	...	...	347,866
March	398	...	...	...	...	...	398	170,754
April	199	...	...	...	...	...	19,819	209,958
May	319	...	...	...	...	9,528	43,410	461,701
June	551	...	32	...	19,609	...	20,192	431,874
July	2,474	...	34	...	43,804	7,696	54,008	534,488
August	1,579	...	...	...	59,917	19,128	80,624	592,550
September	196	...	...	...	80,736	40,188	121,120	563,306
October	1,358	...	...	...	17,141	5,960	24,459	443,638
November	2,958	...	...	9	27,573	10,587	41,127	379,430
December	2,925	...	...	...	44,479	14,932	62,336	417,434
Total	12,977	...	66	9	346,442	108,019	467,513	4,952,675

TOTAL IMPORTATIONS

	Manitoba	Saskatchewan	Alberta	Ft. Frances	Ft. William	Pt. Arthur	Total	Total Dominion
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Bituminous Slack ..	26,330	297	890	11,004	124,019	21,883	184,423	2,228,197
Bituminous	40,990	1,128	301	46,162	1,078,841	570,154	1,737,576	10,127,965
Anthracite	12,977	...	66	9	346,442	108,019	467,513	4,952,675
Total	80,297	1,425	1,257	57,175	1,549,302	700,056	2,389,512	17,308,837

The following tables are taken from reports issued by the Department of Mines, Ottawa. It will be noted, however, that the amounts of coal stated in these tables as being produced each year differ slightly from the amounts shown by the reports issued by the Provincial government.

ANNUAL PRODUCTION OF COAL IN ALBERTA

Year	Short Tons	Value	Average per ton
1887	74,152	\$ 157,577	\$ 2.13
1888	115,124	183,354	1.59
1889	97,364	179,640	1.85
1890	128,753	198,298	1.54
1891	174,131	437,243	2.51
1892	178,970	460,605	2.57
1893	230,070	586,260	2.55
1894	184,940	473,827	2.56
1895	169,885	382,526	2.25
1896	209,162	581,832	2.78
1897	242,163	630,408	2.60
1898	315,088	788,720	2.50
1899	309,600	774,000	2.50
1900	311,450	778,625	2.50
1901	340,275	850,687	2.50
1902	402,819	960,601	2.38
1903	495,893	1,117,541	2.25
1904	661,732	1,404,524	2.12
1905	931,917	1,993,915	2.14
1906	1,246,360	2,614,762	2.10
1907	1,591,579	3,826,286	2.41
1908	1,685,661	4,127,311	2.45
1909	1,994,741	4,838,109	2.43
1910	2,894,469	7,065,736	2.44
1911	1,511,036	3,979,264	2.63
1912	3,240,577	8,113,525	2.50
1913	4,014,755	10,418,941	2.59
1914	3,683,015	9,350,392	2.54
1915	3,360,818	8,283,079	2.46
1916	4,559,054	11,386,577	2.50
1917	4,736,368	14,153,685	2.99
1918	5,972,816	20,537,287	3.44

MINERAL PRODUCTION IN ALBERTA

Product	1917		1918	
	Quantity	Value	Quantity	Value
Gold (Ozs.) .....	.....	\$ .....	27	\$ 558
Coal (Tons)	4,736,368	14,153,685	5,972,816	20,537,287
Natural Gas (M. cu. ft.)	6,744,130	1,299,976	6,318,389	1,358,638
Petroleum (Bls.) ..	8,500	63,302	13,040	100,004
Cement (Bls.)	259,423	567,969	200,401	528,672
Clay Products .....	.....	309,991	.....	381,074
Lime (Bus.)	104,540	35,516	80,408	44,141
Sand-Lime Brick (No.)	1,547,590	15,703	600,000	6,600
Stone .....	.....	7,482	.....	569
Other Products .....	.....	73,911	.....	152,444
Total value .....	.....	16,527,535	.....	23,109,987

The tables following are compiled from statistics gathered by The Mines Branch of the Province of Alberta.

SUMMARY OF STATISTICS

Number of short tons of coal produced	5,022,412
Number of short tons of briquettes produced	70,033
Number of short tons of coke produced .....	.....
Number of short tons of shale produced for making bricks	15,289
Number of coal mines in operation during the year	276
Number of copper-ore mines in operation	1
Number of shale mines in operation	2
Number of mines opened	47
Number of mines re-opened	11
Number of mines abandoned	34
Number of mines closed, but not abandoned	12
Average number of persons employed above ground	2,423
Average number of persons employed below ground	5,150
Number of separate accidents causing loss of life	20
Number of deaths caused by accidents above ground	3
Number of deaths caused by accidents below ground	18
Number of serious accidents above ground	11
Number of serious accidents below ground	45
Number of slight accidents above ground	10
Number of slight accidents below ground	44
Number of persons prosecuted under The Mines Act	21
Number of provisional overmen's certificates issued during 1919	193
Number of third class certificates issued during 1919	56
Number of second class certificates issued during 1919	36
Number of first class certificates issued during 1919	11
Number of mine surveyors' certificates issued during 1919	5
Number of mine rescue certificates issued during 1919	104
Total number of third class certificates issued to December 31, 1919 ...	588
Total number of second class certificates issued to Dec. 31, 1919	289
Total number of first class certificates issued to Dec. 31, 1919	196
Total number of mine surveyors' certificates issued to Dec. 31, 1919 ...	145
Total number of mine rescue certificates issued to Dec. 31, 1919	553

In the following tables the short ton of 2,000 lbs. is used in all cases.

Year	Output in tons for N.W.T. Alberta and Saskatchewan	Output in tons Alberta
*1901.....	346,649	.....
*1902.....	510,674	.....
*1903.....	622,939	.....
*1904.....	782,931	.....
*1905.....	.....	811,228
1906.....	.....	1,385,000
1907.....	.....	1,834,745
1908.....	.....	1,845,000
1909.....	.....	2,174,329
1910.....	.....	3,036,757
1911.....	.....	1,694,564
1912.....	.....	3,446,349
1913.....	.....	4,306,346
1914.....	.....	3,821,739
1915.....	.....	3,434,891
1916.....	.....	4,648,604
1917.....	.....	4,863,414
1918.....	.....	6,148,620
1919.....	.....	5,022,412

CLASSIFICATION OF OUTPUTS DURING THE YEARS 1901 TO 1919
INCLUSIVE

Year	Domestic	Domestic and Bitum- inous	Bitum- inous	Anthra- cite	Coal used in Coke Produc- tion	Briquet- tes	Coke
*1901	.....	331,907	.....	14,742	.....	.....	.....
*1902	.....	494,087	.....	16,587	.....	.....	.....
*1903	.....	617,754	.....	5,185	.....	.....	.....
*1904	.....	759,568	.....	23,363	.....	.....	.....
*1905	.....	972,686	.....	43,653	71,292	.....	46,640
1906	602,780	.....	546,623	235,597	103,930	.....	69,844
1907	639,335	.....	939,295	256,115	112,887	49,585	73,782
1908	584,334	.....	1,011,571	249,095	128,397	36,261	75,657
1909	763,673	.....	1,197,399	213,257	148,104	89,785	87,812
1910	878,011	.....	1,896,961	261,785	196,249	108,996	121,578
1911	964,700	.....	649,745	80,119	61,591	48,200	35,984
1912	1,341,389	.....	1,926,371	178,589	170,818	90,000	105,684
1913	1,763,225	.....	2,374,401	168,720	104,012	130,861	65,167
1914	1,697,401	.....	1,953,367	170,971	44,249	109,082	29,058
1915	1,682,922	.....	1,626,237	125,732	38,878	83,180	23,826
1916	2,172,801	.....	2,335,259	140,544	67,105	107,959	41,950
1917	2,537,829	.....	2,206,868	118,717	51,905	93,818	31,630
1918	3,035,061	.....	2,982,334	131,225	53,462	100,470	32,858
1919	2,611,009	.....	2,325,787	85,616	.....	70,033	.....

*Includes outputs from Alberta and Saskatchewan.

During the year 1909 a strike affecting all the larger mines in the Province lasted for a period of three months.

During the year 1911 a strike affecting all the larger mines in the Province lasted for a period of eight months.

During the year 1917 a strike affecting all the larger mines in the Province lasted for a period of three months.

During the year 1919 a strike affecting all the larger mines in the Province lasted for a period of three months.

The following table shows the outputs of the different districts for the years 1918 and 1919

Districts	1918			1919		
	Domes- tic	Bitu- minous	Anth- racite	Domes- tic	Bitu- minous	Anth- racite
Crow's Nest Pass .....	.....	1,601,486	.....	.....	1,187,966	.....
Pincher Creek	3,955	.....	.....	4,845	.....	.....
Lethbridge	857,092	.....	.....	597,540	.....	.....
Magrath	1,627	.....	.....	1,816	.....	.....
Milk River	6,848	.....	.....	6,463	.....	.....
Taber	183,485	.....	.....	108,210	.....	.....
Bow Island	7,283	.....	.....	7,334	.....	.....
Medicine Hat	19,028	.....	.....	22,546	.....	.....
Aldersyde	8,069	.....	.....	8,091	.....	.....
High River	570	.....	.....	449	.....	.....
Canmore .....	.....	274,709	.....	.....	201,891	.....
Banff .....	.....	.....	131,225	.....	.....	85,616
Drumheller	881,081	.....	.....	804,930	.....	.....
Big Valley	34,718	.....	.....	34,334	.....	.....
Brazeau .....	.....	371,562	.....	.....	308,990	.....
Brooks	9,783	.....	.....	8,072	.....	.....
Hanna	29,533	.....	.....	25,792	.....	.....
Lacombe	15,201	.....	.....	15,675	.....	.....
Trochu	18,248	.....	.....	24,198	.....	.....
Three Hills	30,150	.....	.....	26,192	.....	.....
Carbon	5,431	.....	.....	4,335	.....	.....
Battle River	12,203	.....	.....	13,705	.....	.....
Camrose	56,597	.....	.....	86,582	.....	.....
Tofield	66,054	.....	.....	94,549	.....	.....
Clover Bar	264,868	.....	.....	295,154	.....	.....
Edmonton	106,756	.....	.....	91,596	.....	.....
Namoo	21,660	.....	.....	10,501	.....	.....
Cardiff	266,142	.....	.....	176,021	.....	.....
Wabamun	19,250	.....	.....	32,174	.....	.....
Pembina	109,429	.....	.....	109,905	.....	.....
Jasper Park .....	.....	283,342	.....	.....	143,521	.....
Yellowhead Pass .....	.....	195,972	.....	.....	209,043	.....
Mountain Park .....	.....	255,263	.....	.....	274,376	.....
Peace River .....	.....	.....	.....	.....	.....	.....
Total	3,035,061	2,982,334	131,225	2,611,009	2,325,787	85,616

W. H. J. Greenwood

The following table indicates how the total outputs of COAL, BRIQUETTES and COKE were disposed of:

	Sold for Consumption in						Used			Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total output for year including put to stock and waste but not lifted from stock or waste
	Alberta	B. C.	Saskatchewan	Manitoba	Ontario	United States	Total Sales	Making Briquettes	Making Coke	Under Coking Boilers				
Domestic	1,219,070	33,111	865,698	270,467	248	6,606	2,395,290	.....	.....	162,364	17,664	57,105	11,067	2,611,009
Bituminous	1,763,178	57,267	245,714	42,547	60	114,409	2,223,175	.....	.....	92,095	6,898	8,517	4,844	2,323,787
Anthracite	8,862	5,083	3,917	1,276	...	107	19,245	27,950	.....	25,377	364	12,842	162	85,616
Total	2,991,110	95,461	1,115,329	314,290	308	121,212	4,637,710	27,950	.....	279,836	24,926	78,464	16,073	5,022,412
Briquettes	47,856	4,122	12,287	5,671	...	70	70,006	.....	.....	33	454	...	460	70,033
Coke	129	113	63	263	...	..	568	.....	.....	..	...	...	568	...

The Bituminous coal shown in these tables as being sold for consumption in Alberta includes coal sold to railway companies for the use of locomotives, a considerable percentage of which was probably used in other Provinces.

The following table indicates how the total output of DOMESTIC Coal from the Province was disposed of :

Name of District	Sold for Consumption in						Used Under Colliery Boilers	Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total output for year including stock and waste but not lifted from stock or waste
	Alberta	B. C.	Saskatchewan	Manitoba	Ontario	United States						
Pincher Creek	4,605	16,183	277,420	49,847	114	33	4,638	150	57	7,884	2,355	4,845
Lethbridge	171,425					2,859	517,848	12,546	13,679			597,540
Magrath	1,816						1,816					1,816
Milk River	6,246					189	6,435		28			6,463
Taber	19,581	3,392	46,516	12,376		3,356	85,221	47	9,171		1,415	108,210
Bow Island	6,768						6,768	37	588	37	22	7,334
Medicine Hat	5,481		14,340	962			20,783	58	1,697		3	22,546
Aldersyde	7,520	180					7,700		401		10	8,091
High River	449						449					449
Drumheller	211,384	6,996	399,414	139,961	131	259	758,145	1,885	15,056	368	5,393	804,930
Big Valley	28,253		3,658	2,185	3		34,099	235				34,334
Brooks	8,085						8,085	12		25		8,072
Hanna	24,166		237	58			24,461	627	833	314	40	25,792
Lacombe	15,007		33				15,040		635			15,675
Trochu	18,214	360	1,972	708			21,254	448	2,235	304	69	24,198
Three Hills	17,318		159	6,009			23,486	265	964	625	32	26,192
Carbon	4,328						4,328		7			4,335
Battle River	12,982						12,982	311	514	105		13,705
Camrose	59,911	139	23,253	470			83,773	143	1,959	51	720	86,582
Tofield	64,458		25,058	4,273			93,798	580	180			94,549
Clover Bar	241,796	64	25,369	7,658			274,887	15,731	4,526			295,154
Edmonton	76,599	174	3,507	2,507			82,817	8,739	139			91,596
Namoo	8,403		1,229				9,632	235	535			10,501
Cardiff	144,761	58	14,644	7,368			166,831	191	139			176,021
Wabamun	19,892	2,149	6,323	2,724			31,088				288	32,174
Pembina	39,622	3,416	22,566	33,331			98,935	1,358	3,752	1,354		109,905
Peace River												
Total	1,219,070	33,111	865,698	270,467	248	6,696	2,395,290	17,664	57,105	11,067	10,347	2,611,009

The following table indicates how the total output of BITUMINOUS Coal from the Province was disposed of:

District	Sold for Consumption in					Mak- ing Bri- quettes	Mak- ing Coke	Under Colliery Boilers	Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total output for year in- cluding put to stock and waste out not lifted from stock or waste
	Alberta	B. C.	Saskat- chewan	Mani- toba	On- tario	United States							
Crow's N. P. . . .	880,755	43,812	88,264	9,527	..	114,409	1,136,767	..	..	..	..	..	1,187,966
Canmore	173,611	4,866	7,529	79	..	..	186,085	..	..	..	..	..	201,891
Brazeau	285,330	..	16,432	1,016	60	..	302,838	..	..	..	..	..	308,990
Jasper Park	137,936	31	..	..	..	..	137,967	..	..	..	..	..	143,521
Yellowhead Ps. . .	158,874	7,678	21,062	6,429	..	..	194,043	..	..	..	..	..	209,043
Mountain Pk. . . .	126,672	880	112,427	25,496	..	..	265,475	..	..	..	..	..	274,376
Total	1,763,178	57,267	245,714	42,547	60	114,409	2,223,175	..	..	..	..	..	2,325,787

The following table indicates how the total outputs of ANTHRACITE, BRIQUETTES and COKE were disposed of:

Anthracite	8,862	5,083	3,917	1,276	..	107	19,245	27,950	..	..	162	..	85,616
Briquettes	47,856	4,122	12,287	5,671	..	70	70,006	..	..	..	460	..	70,033
Coke	129	113	63	263	..	..	568	..	..	..	568	..	..

There was no coke produced during the year. Briquettes are only produced in the Banff District.

The following tables give particulars of work done at the Shale Mines in the Province:

OUTPUT OF SHALE IN TONS OF 2,000 LBS., USED FOR MAKING BRICKS, 15,289 TONS.

AVERAGE NUMBER OF DAYS WORKED

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Medicine Hat.	8.00	...	...	18.00	20.00	16.00	19.50	20.00	11.00	11.50	13.00	11.50	74.25

NUMBER OF MEN EMPLOYED IN SHALE MINES.

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Medicine Hat.	16	..	..	16	16	16	16	16	16	16	16	16	160

Mine Timber Used: 15,478 lineal feet.
Explosives Used: Dynamite 5,076 lbs.

Shots fired by: Electric Detonator, 3,248; Fuse, 1,797.
Miss-Fires: Electric Detonator, 4; Fuse, 8.

BRICKS IN TONS OF 2,000 LBS., SOLD FOR USE IN

Alberta	British Columbia	Manitoba	Saskatchewan	Total
1,488	3,767	317	8	5,580

COPPER ORE MINE

Number of Men Employed	Days Worked	Explosives used: Dynamite, 650 lbs. Forteite, 1325 lbs.	Shots Fired by Fuse	Mine Timber used
72	271		1,100	1,487 lineal feet.

The following table shows the total output of DOMESTIC Coal in Districts during each month:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	518	321	451	67	78	122	188	247	526	387	818	1,122	4,845
Lethbridge	54,856	29,429	57,099	46,879	42,082	4,005	5,000	14,650	66,413	88,810	91,448	96,869	597,540
Magrath	241	101	91	89	50	136	182	215	238	125	200	148	1,816
Milk River	892	218	306	135	150	203	166	363	857	1,202	1,045	926	6,463
Taber	5,267	3,156	5,658	2,006	2,406	339	1,168	5,721	13,859	20,347	22,723	25,560	108,210
Bow Island	444	238	449	246	220	339	241	255	700	1,899	1,368	978	7,334
Medicine Hat	1,018	994	914	311	331	944	1,000	930	2,768	4,298	4,221	4,787	22,546
Aldersyde	638	415	508	209	245	240	381	442	994	1,556	1,215	1,268	8,091
High River	78	26	32	13	...	...	...	...	13	62	98	127	449
Drumheller	47,244	33,689	50,161	10,757	15,168	1,017	8,200	43,961	124,675	147,351	157,736	104,971	804,930
Big Valley	5,397	1,920	2,643	1,214	254	200	153	2,722	3,694	4,767	5,304	6,066	34,334
Brooks	561	573	639	178	272	360	392	406	896	494	1,095	2,206	8,072
Hanna	1,640	1,393	2,400	373	699	1,209	1,184	938	2,150	4,463	4,080	5,263	25,792
Lacombe	1,418	1,430	1,368	177	183	253	226	244	849	1,876	3,776	3,875	15,675
Trochu	1,682	1,969	2,297	796	495	693	967	1,206	1,615	3,393	4,470	4,615	24,198
Three Hills	1,159	1,034	2,437	279	513	694	1,026	1,578	2,486	4,293	5,013	5,770	26,192
Carbon	298	334	469	26	30	245	314	209	274	514	608	1,014	4,335
Battle River	1,865	1,942	1,609	23	15	20	34	106	280	1,319	2,585	3,907	13,705
Camrose	5,560	5,424	6,090	1,849	1,913	5,727	6,178	6,328	6,784	10,039	15,542	14,528	86,582
Tofield	5,781	5,145	5,090	2,604	3,429	4,569	4,414	4,775	7,569	10,016	18,805	22,352	94,549
Clover Bar	22,215	20,515	27,178	9,683	11,406	8,796	10,587	18,707	28,509	40,661	45,665	51,142	295,154
Edmonton	10,049	9,123	9,717	2,745	1,091	183	475	1,741	6,609	12,301	18,417	19,145	91,596
Namoo	1,972	1,486	1,067	322	366	...	...	16	316	1,116	1,678	2,162	10,501
Cardiff	29,396	20,514	24,505	8,821	5,633	50	102	162	6,604	22,849	26,888	30,497	176,021
Wabamun	944	573	701	1,888	1,052	2,405	4,125	3,664	3,718	4,482	3,983	4,639	32,174
Pembina	6,860	6,252	4,938	7,741	8,916	4,687	6,426	8,096	10,693	15,547	15,436	14,313	109,905
Peace River	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	208,023	148,214	209,417	99,431	97,087	37,333	53,129	117,682	294,149	404,077	454,217	488,250	2,611,009

THE MINES BRANCH

The following table shows the total sales of DOMESTIC COAL in Districts, during each month:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	493	301	439	67	78	122	188	247	526	387	818	972	4,638
Lethbridge	47,717	29,338	52,815	38,289	35,696	1,397	2,254	13,151	58,497	76,610	77,571	84,513	517,848
Magrath	241	101	91	89	50	136	182	215	238	125	200	148	1,816
Milk River	892	216	306	135	149	203	166	363	857	1,202	1,020	926	6,435
Taber	4,752	2,655	4,244	1,044	1,423	308	962	4,518	11,001	16,045	17,892	20,377	85,221
Bow Island	404	237	417	216	201	214	222	230	705	1,773	1,259	890	6,768
Medicine Hat	1,006	949	880	297	316	610	903	881	2,361	3,995	4,005	4,580	20,783
Aldersyde	615	393	488	200	239	231	371	423	940	1,435	1,147	1,218	7,700
High River	78	26	32	13	...	...	...	...	13	62	98	127	449
Drumheller	43,262	31,189	47,868	9,957	13,940	460	7,396	41,135	118,127	140,132	149,143	155,536	758,145
Big Valley	5,347	1,870	2,593	1,189	234	180	133	2,722	3,694	4,767	5,304	6,066	34,099
Brooks	584	569	635	176	272	360	392	406	896	494	1,095	2,206	8,085
Hanna	1,539	1,263	2,301	332	638	1,132	1,105	835	1,883	4,494	3,858	5,081	24,461
Lacombe	1,364	1,372	1,302	177	183	253	211	224	809	1,823	3,614	3,708	15,040
Trochu	1,564	1,651	2,098	749	392	605	763	1,010	1,400	3,037	3,937	4,048	21,254
Three Hills	1,365	892	2,144	249	410	547	879	1,419	2,228	3,671	4,534	5,148	23,486
Carbon	298	327	469	26	30	245	314	209	274	514	608	1,014	4,328
Battle River	1,672	1,811	1,481	20	15	20	32	116	216	1,274	2,575	3,750	12,982
Camrose	5,211	5,140	6,201	1,754	1,848	5,647	6,248	6,481	6,742	9,567	14,976	13,958	83,773
Tofield	5,701	5,075	5,020	2,559	3,389	4,499	4,349	4,715	7,509	9,986	18,745	22,242	93,789
Clover Bar	20,163	18,884	25,175	8,701	10,496	7,759	9,757	17,431	27,114	38,297	42,997	48,113	274,887
Edmonton	9,095	8,226	8,482	2,207	768	39	293	1,407	5,828	11,149	17,241	18,082	82,817
Namoo	1,799	1,379	925	239	256	...	...	16	301	1,080	1,613	2,024	9,632
Cardiff	28,339	19,532	23,515	8,042	4,987	...	...	...	5,653	21,884	25,760	29,119	166,831
Wabamun	913	542	679	1,872	1,304	2,319	3,949	3,404	3,568	4,282	5,760	4,453	31,088
Pembina	5,869	5,424	4,247	6,879	8,551	4,179	5,805	7,461	9,656	14,444	13,703	12,717	98,935
Peace River	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	190,283	139,362	194,847	85,478	85,805	31,465	46,874	109,019	271,036	372,529	417,516	451,016	2,395,290

The following table shows the total sales of BITUMINOUS COAL, in Districts during each month:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest P.	133,526	124,700	137,808	95,602	99,137	221	37	9,310	104,010	147,431	144,243	140,742	1,136,767
Canmore	21,415	20,889	22,438	18,620	12,390	....	....	4,073	18,702	23,037	24,063	20,458	186,085
Brazeau	38,392	33,094	38,021	29,530	27,771	1,896	2,340	2,534	31,037	34,104	30,094	34,025	302,838
Jasper Park	22,723	20,859	20,232	20,016	2,842	15	14	14	2,064	8,618	21,472	19,098	137,967
Y. Head P.	24,733	21,571	20,905	12,481	9,343	131	1,899	10,766	23,591	22,950	21,011	24,662	194,043
Mountain P.	34,120	34,186	28,064	29,548	19,104	5	5	2,128	22,509	32,705	32,776	30,625	265,475
Total	274,909	255,299	267,468	205,797	170,587	2,268	4,295	28,825	201,613	268,845	273,659	269,610	2,223,175

The following table shows the total sales of ANTHRACITE COAL during each month:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Banff	2,306	1,878	2,627	2,437	76	39	24	362	1,601	2,107	2,936	2,852	19,245

The following table shows the total sales of COAL, BRIQUETTES and COKE during each month:

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Coal	467,498	396,539	464,942	293,712	256,528	33,772	51,193	138,206	474,250	643,481	694,111	723,478	4,637,710
Briquettes	7,934	8,947	9,211	9,613	11	14	....	1,559	8,281	9,366	8,070	7,000	70,006
Coke	....	....	30	....	....	....	....	....	28	237	273	....	568

THE MINES BRANCH

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in Alberta:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	493	301	439	67	78	122	188	247	526	354	818	972	4,605
Lethbridge	16,048	10,741	15,635	10,346	13,679	1,367	1,867	6,360	15,564	24,985	27,538	27,295	171,425
Magrath	241	101	91	89	50	136	182	215	238	125	200	148	1,816
Milk River	880	212	302	133	147	301	164	331	847	1,135	992	902	6,246
Taber	1,204	889	1,118	564	655	308	494	1,011	2,308	3,072	3,935	4,023	19,581
Bow Island	404	237	417	216	201	214	222	230	705	1,773	1,259	890	6,768
Medicine Hat	284	226	254	28	30	40	21	73	514	1,444	1,266	1,307	5,481
Aldersyde	615	393	488	200	239	231	371	423	760	1,435	1,147	1,218	7,520
High River	78	26	32	13	...	...	...	...	13	62	98	127	449
Drumheller	8,547	9,394	14,363	3,426	5,947	362	3,138	12,801	30,725	37,488	40,612	44,581	211,384
Big Valley	5,347	1,870	2,593	1,189	234	180	133	1,670	2,377	3,359	4,308	4,993	28,253
Brooks	584	569	635	176	272	360	392	406	896	494	1,095	2,206	8,085
Hanna	1,539	1,263	2,301	332	638	1,132	1,105	835	1,883	4,494	3,858	4,786	24,166
Lacombe	1,364	1,372	1,302	177	183	253	211	224	809	1,823	3,581	3,708	15,007
Trochu	1,564	1,651	2,033	749	392	572	312	683	1,040	2,011	3,449	3,758	18,214
Three Hills	1,365	892	2,025	222	410	453	539	883	1,133	2,803	3,176	3,417	17,318
Carbon	298	327	469	26	30	245	314	209	274	514	608	1,014	4,328
Battle River	1,672	1,811	1,481	20	15	20	32	116	216	1,274	2,575	3,750	12,982
Camrose	3,316	3,514	3,948	1,063	1,023	4,758	4,933	4,202	4,196	7,197	12,308	9,433	59,911
Tofield	5,078	4,565	3,481	2,528	3,389	4,470	4,217	4,503	6,086	5,480	9,539	10,122	64,458
Clover Bar	19,001	17,918	22,183	8,347	10,129	7,308	8,776	14,437	23,106	32,528	37,518	41,545	241,796
Edmonton	8,174	7,816	8,108	2,207	593	39	274	1,270	5,431	10,905	15,446	16,336	76,599
Namoo	1,471	1,315	896	239	256	...	...	16	301	1,047	1,377	1,485	8,403
Cardiff	22,751	18,307	21,722	7,033	4,923	...	...	...	4,798	18,670	22,400	24,148	144,761
Wabamun	380	339	517	1,872	1,119	2,319	3,638	1,265	1,791	2,562	2,081	1,999	19,892
Pembina	1,768	1,552	1,255	3,166	3,204	1,245	1,590	1,755	3,457	7,331	7,167	6,132	39,622
Peace River	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	104,476	87,601	109,088	44,428	47,836	26,335	33,133	54,165	108,994	174,365	208,354	220,295	1,219,070

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in British Columbia :

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek.	1,773	859	996	431	3,375	.....	.....	146	2,077	1,758	2,006	2,762	16,183
Lethbridge
Magrath
Milk River	12	558	336	454	673	684	3,392
Taber ..	274	80	321	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bow Island
Medicine Hat.
Aldersyde	180	.....	.....	.....	180
High River
Drumheller ..	344	170	285	108	275	.....	.....	171	1,580	959	1,392	1,712	6,996
Big Valley
Brooks
Hanna
Lacombe
Trochu	33	.....	327	.....	.....	.....	360
Three Hills
Carbon
Battle River
Camrose	33	.....	.....	.....	.....	.....	.....	.....	106	139
Tofield
Clover Bar	31	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
Edmonton	174	.....	.....	.....	174
Namoo
Cardiff
Wabamun	311	1,313	392	32	.....	26	55
Pembina ..	290	253	217	65	315	289	885	62	272	93	139	536	2,149
Peace River	3,416
Total ..	2,681	1,393	1,852	637	3,965	289	1,241	2,250	5,338	3,296	4,343	5,826	33,111

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in Saskatchewan:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	...	...	...	...	...	...	...	...	...	...	...	...	...
Lethbridge	25,776	14,960	29,171	25,104	16,663	30	387	5,730	34,897	40,996	39,746	43,960	277,420
Magrath	...	...	...	...	...	...	...	...	...	...	...	...	...
Milk River	...	...	...	...	...	...	...	...	...	...	...	...	...
Taher	2,169	1,119	2,207	275	735	...	456	2,562	6,485	8,836	10,008	11,664	46,516
Bow Island	...	...	...	...	...	...	...	...	...	...	...	...	...
Medicine Hat	648	723	626	269	286	541	882	808	1,847	2,551	2,551	2,608	14,340
Aldersyde	...	...	...	...	...	...	...	...	...	...	...	...	...
High River	...	...	...	...	...	...	...	...	...	...	...	...	...
Drumheller	19,375	14,562	22,897	5,236	6,622	98	3,491	22,468	63,959	73,944	83,522	83,240	399,414
Big Valley	...	...	...	...	...	...	...	604	735	1,045	648	626	3,658
Brooks	...	...	...	...	...	...	...	...	...	...	...	...	...
Hanna	...	...	...	...	...	...	...	...	...	...	...	...	...
Lacombe	...	...	...	...	...	...	...	...	...	...	...	...	...
Trochu	...	...	65	...	...	33	418	297	33	528	398	200	1,972
Three Hills	...	...	...	...	...	...	95	33	31	...	...	...	159
Carbon	...	...	...	...	...	...	...	...	...	...	...	...	...
Battle River	...	...	...	...	...	...	...	...	...	...	...	...	...
Camrose	1,895	1,626	2,253	658	825	880	1,295	2,279	2,546	2,370	2,668	3,949	23,253
Tofield	559	478	446	31	...	29	132	150	1,196	3,798	7,828	10,411	25,058
Clover Bar	966	840	1,961	261	303	387	851	2,402	4,054	4,277	3,917	5,150	25,369
Edmonton	491	386	227	...	175	...	19	137	223	114	638	1,097	3,507
Namoo	328	64	29	...	...	...	...	...	...	33	236	539	1,229
Cardiff	2,738	1,158	1,516	783	64	...	...	...	591	2,044	1,821	3,929	14,644
Wabamun	199	141	30	...	154	...	...	826	1,220	1,359	1,191	1,203	6,323
Fernina	1,532	1,987	1,007	1,374	2,913	1,853	797	2,939	3,627	2,060	874	1,663	22,566
Peace River	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	56,676	38,044	62,435	33,991	28,740	3,860	8,763	41,235	121,444	143,955	156,079	170,476	865,698

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in Manitoba:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek.	4,087	2,730	6,980	2,358	1,979	.....	.....	915	5,959	8,871	8,082	7,886	49,847
Lethbridge ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Magrath ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milk River ..	760	520	424	205	33	.....	.....	246	1,495	2,339	2,396	3,358	12,376
Taber ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bow Island ..	.....	.....	.....	.....	.....	29	.....	.....	.....	.....	104	665	962
Medicine Hat ..	74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Aldersyde ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
High River ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drumheller ..	14,962	7,063	10,323	1,187	1,096	.....	767	5,652	21,616	27,708	23,584	26,003	139,961
Big Valley ..	.....	.....	.....	.....	.....	.....	.....	445	582	363	348	447	2,185
Brooks ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hanna ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lacombe ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trochu ..	.....	.....	.....	.....	.....	.....	.....	30	.....	498	90	90	708
Three Hills ..	.....	.....	119	27	.....	.....	245	503	1,064	868	1,358	1,731	6,009
Carbon ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Battle River ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camrose ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tofield ..	64	32	93	.....	.....	.....	.....	62	227	708	1,378	1,709	4,273
Clover Bar ..	196	95	998	93	64	64	130	592	954	1,492	1,562	1,418	7,658
Edmonton ..	430	24	147	.....	.....	.....	.....	.....	.....	130	1,157	649	2,537
Namoo ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cardiff ..	2,850	67	277	226	.....	.....	.....	.....	264	1,138	1,530	1,016	7,368
Wabamun ..	324	62	132	.....	31	.....	.....	.....	165	361	398	1,251	2,724
Pembina ..	2,279	1,632	1,768	2,274	2,119	792	2,593	2,705	2,300	4,960	5,523	4,386	33,331
Peace River ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total ..	26,026	12,225	21,261	6,870	5,322	979	3,735	11,150	34,626	50,036	47,600	51,137	270,467

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in Ontario:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek
Lethbridge	33	48	33	...	...	...	...	...	...	...	...	...	114
Magrath
Milk River
Taber
Bow Island
Medicine Hat
Aldersyde
High River	31	33	...	...	131
Drumheller	34	...	...	...	...	...	...	3	...	...	...	...	3
Big Valley
Brooks
Hanna
Lacombe
Trochu
Three Hills
Carbon
Battle River
Camrose
Tofield
Clover Bar
Edmonton
Namoo
Cardiff
Wabamun
Pembina
Peace River
Total	67	48	33	...	...	...	...	3	31	33	33	...	248

The following table shows the amount of DOMESTIC COAL sold during each month for consumption in United States:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	33	...	...	33
Lethbridge	50	...	...	...	...	...	...	199	2,610	2,859
Magrath
Milk River	12	4	4	2	2	2	2	32	10	67	28	24	189
Taber	345	47	174	...	...	...	...	141	377	744	880	648	3,356
Bow Island
Medicine Hat
Aldersyde
High River
Drumheller	43	216	...	...	...	259
Big Valley
Brooks
Hanna
Lacombe
Trochu
Three Hills
Carbon
Battle River
Camrose
Tofield
Clover Bar
Edmonton
Namoo
Cardiff
Wabamun
Pembina
Peace River
Total	357	51	178	52	2	2	2	216	603	844	1,107	3,282	6,696

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in Alberta:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest	116,419	111,436	116,859	83,928	84,903	15	37	6,376	72,093	104,709	94,531	89,455	880,755
Pass	18,669	19,912	21,038	17,618	11,732	....	....	3,731	17,348	20,910	23,165	19,488	173,611
Cannore	37,090	31,645	36,620	28,444	26,306	463	582	1,466	29,264	32,188	28,919	32,343	285,330
Brazeau	22,723	20,839	20,201	20,016	2,842	15	14	14	2,064	8,618	21,472	19,098	137,936
Jasper Park . .	16,311	17,239	17,859	12,059	8,177	131	1,697	8,534	20,532	19,820	17,124	19,391	158,874
Yellowhead Ps.	15,959	18,237	13,229	15,012	11,606	5	5	1,014	10,086	15,918	12,928	12,673	126,672
Mountain Park													
Total	227,171	219,328	225,806	177,077	145,566	629	2,335	21,129	151,387	202,163	198,139	192,448	1,763,178

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in British Columbia.

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest	3,475	3,847	8,192	530	1,257	....	....	172	4,398	5,449	8,035	8,457	43,812
Pass	1,918	272	587	564	....	....	....	33	215	558	204	515	4,866
Cannore . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....
Brazeau . . . .	....	....	31	....	....	....	....	....	....	....	....	....	....
Jasper Park . .	....	....	704	297	302	....	202	1,158	1,691	707	409	677	31
Yellowhead Ps.	934	597	30	....	32	....	....	....	99	142	296	247	7,678
Mountain Park	....	34	....	....	....	....	....	....	....	....	....	....	880
Total	6,327	4,750	9,544	1,391	1,591	....	202	1,363	6,403	6,856	8,944	9,896	57,267

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in Saskatchewan:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest													
Pass	6,292	7,187	10,059	5,561	6,770	206	....	477	14,462	15,501	14,155	7,594	88,264
Canmore .. .	828	705	780	438	658	....	....	309	1,139	1,523	694	455	7,529
Brazeau .. .	960	975	1,370	1,043	1,465	1,433	1,643	997	1,773	1,916	1,175	1,682	16,432
Jasper Park ..	....	....	....	....	....	....	....	....	....	....	....	....	....
Yellowhead Ps.	7,209	2,944	1,517	95	382	....	....	1,074	668	1,444	2,653	3,076	21,062
Mountain Park	16,277	15,395	13,066	13,863	6,355	....	....	778	8,028	11,600	14,258	12,807	112,427
Total	31,566	27,206	26,792	21,000	15,630	1,639	1,643	3,635	26,070	31,984	32,935	25,614	245,714

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in Manitoba:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest													
Pass	268	163	1,250	972	1,678	....	....	377	732	1,004	1,269	1,814	9,527
Canmore .. .	....	....	33	....	....	....	....	....	....	46	....	....	79
Brazeau .. .	282	474	31	43	....	....	115	71	....	....	....	....	1,016
Jasper Park ..	....	....	....	....	....	....	....	....	....	....	....	....	....
Yellowhead Ps.	279	791	825	30	482	....	....	....	700	979	825	1,518	6,429
Mountain Park	1,884	520	1,739	673	1,111	....	....	336	3,996	5,045	5,294	4,898	25,496
Total	2,713	1,948	3,878	1,718	3,271	....	115	784	5,428	7,074	7,388	8,230	42,547

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in Ontario:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest Pass .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canmore .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brazeau	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
Jasper Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellowhead Ps. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mountain Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60

The following table shows the amount of BITUMINOUS COAL sold during each month for consumption in United States:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest Pass	7,072	2,067	1,448	4,611	4,529	.....	.....	1,914	12,325	20,768	26,253	33,422	114,409
Canmore .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brazeau .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jasper Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellowhead Ps. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mountain Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	7,072	2,067	1,448	4,611	4,529	.....	.....	1,914	12,325	20,768	26,253	33,422	114,409

The following table shows the amount of ANTHRACITE COAL, BRIQUETTES and COKE respectively sold during each month for consumption in Alberta:

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Anthracite ...	823	823	916	616	76	39	24	278	865	1,056	1,775	1,571	8,862
Briquettes ...	5,182	7,495	6,073	8,766	11	14	....	1,412	3,880	5,083	5,502	4,438	47,856
Coke ...	....	....	30	....	....	....	....	....	28	34	37	....	129

The following table shows the amount of ANTHRACITE COAL, BRIQUETTES and COKE respectively sold during each month for consumption in British Columbia:

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Anthracite ...	638	346	633	1,282	....	....	....	....	416	490	519	759	5,083
Briquettes ...	319	462	911	42	....	....	....	....	943	664	477	304	4,122
Coke ...	....	....	....	....	....	....	....	....	....	66	47	....	113

The following table shows the amount of ANTHRACITE COAL, BRIQUETTES and COKE respectively sold during each month for consumption in Saskatchewan:

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Anthracite ...	735	455	791	329	....	....	....	84	320	561	642	....	3,917
Briquettes ...	2,201	411	1,709	805	....	....	....	147	2,452	2,650	387	1,525	12,287
Coke ...	....	....	....	....	....	....	....	....	....	....	63	....	63

The following table shows the amount of DOMESTIC COAL used during each month under Colliery Boilers:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek.	5,966	4,474	5,434	5,715	4,918	2,920	3,759	3,404	6,107	6,753	7,027	7,299	63,706
Lethbridge ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Magrath ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milk River ..	780	728	1,268	950	955	365	540	1,065	1,767	2,135	2,296	2,337	15,186
Taber ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bow Island ..	.....	.....	.....	.....	.....	1	.....	1	2	2	2	3	11
Medicine Hat ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Aldersyde ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
High River ..	3,775	3,244	3,182	2,078	1,767	865	1,065	2,653	3,807	4,261	4,349	4,559	35,605
Drumheller ..	50	50	50	25	20	20	20	.....	.....	.....	.....	.....	235
Big Valley ..	2	4	4	2	.....	.....	.....	.....	.....	.....	.....	.....	12
Brooks ..	41	43	61	33	38	39	46	48	41	59	91	87	627
Hanna ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lacombe ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trochu ..	40	38	42	35	35	55	59	75	50	50	85	70	634
Three Hills ..	79	105	185	92	88	100	130	186	206	298	320	345	2,134
Carbon ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Battle River ..	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Camrose ..	129	124	139	95	55	50	50	102	112	183	206	233	1,478
Tofield ..	60	55	55	40	35	67	63	60	55	20	35	35	580
Clover Bar ..	1,166	900	1,342	868	1,000	973	778	1,146	1,215	1,898	2,210	2,235	15,731
Edmonton ..	950	892	1,235	538	323	144	182	334	781	1,150	1,162	1,048	8,739
Namoo ..	31	23	16	6	11	.....	.....	.....	15	21	45	67	235
Cardiff ..	1,057	982	990	779	646	50	102	162	729	965	1,128	1,270	8,860
Wabamun ..	31	31	22	16	36	86	176	260	150	200	180	186	1,374
Pembina ..	764	614	543	623	510	515	592	600	573	600	542	738	7,214
Peace River ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total ..	14,922	12,307	14,568	11,895	10,437	6,150	7,592	10,096	15,610	18,595	19,678	20,514	162,364

The following table shows the amount of BITUMINOUS COAL USED during each month under Colliery Boilers:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest													
Pass .. .	4,431	4,246	5,333	4,313	3,829	729	1,127	2,111	4,128	5,045	5,160	5,710	46,162
Canmore .. .	1,585	1,471	1,579	1,431	1,348	950	900	870	1,190	1,600	1,387	1,463	15,774
Brazeau .. .	583	597	701	586	447	295	61	240	561	671	683	727	6,152
Jasper Park .. .	605	220	738	712	390	....	....	....	80	620	669	966	5,010
Yellowhead Ps.	940	1,022	994	929	630	176	60	379	1,113	1,240	1,305	1,308	10,096
Mountain Park	1,092	987	1,123	840	744	177	274	194	767	787	903	1,013	8,901
Total .. .	9,236	8,543	10,408	8,811	7,388	2,327	2,422	3,704	7,849	9,963	10,107	11,187	92,095

The following table shows the amount of ANTHRACITE COAL used during each month under Colliery Boilers:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Banff .. .	3,213	2,606	2,633	2,675	....	....	726	1,023	2,233	3,274	3,072	3,862	25,377

The following table shows the total amount of BITUMINOUS COAL sold during each month to Railroads:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest													
Pass	110,933	105,982	108,732	79,370	72,991	.....	.....	5,584	71,631	105,220	99,615	92,494	852,607
Cannore	17,644	18,855	20,117	16,586	10,713	.....	.....	3,342	15,114	19,328	21,339	17,153	160,191
Brazear	35,777	30,754	35,720	28,093	25,780	.....	.....	821	28,601	30,880	27,502	30,931	274,850
Jasper Park	22,642	13,178	13,573	15,437	272	14	.....	.....	2,051	7,086	15,874	12,048	102,175
Yellowhead Ps.	22,297	19,379	19,699	11,653	7,458	.....	.....	5,378	17,224	19,289	15,125	15,795	153,297
Mountain Park	30,232	33,005	25,072	28,553	16,400	.....	.....	1,349	15,555	24,622	24,049	21,662	220,504
Total	239,525	221,153	222,913	179,697	133,614	14	.....	16,474	150,226	206,425	203,504	190,083	1,763,628

The following table shows the total amount of ANTHRACITE COAL sold during each month to Railroads.

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Banff	1,671	.....	.....	.....	359	110	.....	42	126	2,308
Briquettes	9,098	.....	.....	.....	1,292	2,411	3,557	4,275	2,181	22,814

OUTPUTS AND NUMBER OF MINES PRODUCING

	Under 10,000 tons		From 10,000 to 50,000 tons		From 50,000 to 100,000 tons		From 100,000 to 200,000 tons		From 200,000 to 300,000 tons		From 300,000 to 400,000 tons		Total	
	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output
Domestic	199	225,575	33	869,779	14	937,949	2	295,958	1	281,748		.....	249	2,611,009
Bituminous	9	17,410	5	110,815	3	265,526	3	453,085	5	1,175,174	1	303,777	26	2,325,787
Anthracite . . . . .		.....		.....	1	85,616		.....		.....		.....	1	85,616
Total	208	242,985	38	980,594	18	1,289,091	5	749,043	6	1,456,922	1	303,777	276	5,022,412

In addition to the mines shown in the above table as being in operation, one copper ore mine and two shale mines were operated during the year 1919.

The following table shows the classification of persons employed in the DOMESTIC, BITUMINOUS and ANTHRACITE Coal Fields, at December 31, 1919.

	UNDERGROUND					ABOVEGROUND					Total under and above ground			
	Super-vision	Miners and Helpers	Haulage employees	Mech's. skilled labor	Others	Total	Super-vision	Mech's. skilled labor	Clerical Asst.	Others		Coke Ovens	Bri-quette plant	Total
Domestic	228	3,523	829	276	551	5,407	108	420	107	1,328	...	...	1,963	7,370
Bituminous . .	141	1,583	520	62	577	2,883	68	303	72	1,030	...	...	1,473	4,356
Anthracite ..	9	78	10	..	29	126	1	42	7	114	...	11	175	301
Total	378	5,184	1,359	338	1,157	8,416	177	765	186	2,472	...	11	3,611	12,027

THE MINES BRANCH

The following table shows the classification of persons employed in the DOMESTIC Coal Field at December 31, 1919:

Name of District	UNDERGROUND					ABOVE GROUND					Total under-ground and above-ground	
	Super-vision	Miners and Helpers	Haulage employees	Mech's. and skilled labor	Others	Total	Super-vision	Mech's. and skilled labor	Clerical Assist-ance	Others		Total
Pincher Creek	3	15	1	108	92	19	15	174	18	2	2	21
Lethbridge	54	732	239	108	92	1,225	15	174	18	225	432	1,657
Magrath	2	4	..	..	..	6	..	..	..	..	..	6
Milk River	1	38	..	..	..	39	..	..	..	2	2	41
Taber	15	291	36	19	25	386	6	25	8	63	102	488
Bow Island	2	23	..	..	..	25	..	..	..	1	1	26
Medicine Hat	5	51	6	1	8	71	2	4	1	16	23	94
Aldersyde	4	23	..	..	..	27	1	..	..	2	3	30
High River	..	5	..	..	..	5	..	..	..	1	1	6
Drumheller	57	1,059	330	58	209	1,713	36	89	36	465	626	2,339
Big Valley	1	57	7	..	6	71	2	2	1	13	18	89
Brooks	3	68	4	..	..	75	2	..	..	2	4	79
Hanna	8	70	8	..	..	86	5	11	2	16	34	120
Lacombe	4	56	2	..	..	62	..	..	1	4	5	67
Trochu	9	54	4	3	..	70	5	5	6	21	37	107
Three Hills	4	52	6	4	3	69	1	2	2	12	17	86
Carbon	2	21	..	..	..	23	..	1	..	1	2	25
Battle River	4	60	3	..	..	67	..	..	..	5	5	72
Camrose	3	87	12	1	1	104	7	11	4	70	92	196
Tofield	..	3	..	..	..	3	3	4	3	102	112	115
Clover Bar	20	255	59	43	100	477	8	33	8	108	157	634
Edmonton	13	213	44	18	26	314	4	23	6	32	65	379
Namoo	3	47	11	..	..	61	2	4	1	18	25	86
Cardiff	5	144	30	11	49	239	5	20	6	60	91	330
Wabamun	2	30	13	1	3	49	1	4	..	15	20	69
Pembina	4	65	14	9	29	121	3	8	4	72	87	208
Peace River	..	..	..	..	..	..	..	..	..	..	..	..
Total	228	3,523	829	276	551	5,407	108	420	107	1,328	1,963	7,370

THE MINES BRANCH

The following table shows the total number of persons employed during each month in the DOMESTIC COAL Field above and below ground:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total Average
Pincher Creek.	19	19	16	14	7	12	15	17	23	27	27	21	18
Lethbridge . . .	1,580	1,331	1,261	1,091	1,089	201	245	1,083	1,369	1,494	1,625	1,657	1,168
Magrath . . .	6	6	6	6	6	6	6	8	3	6	5	6	6
Milk River . . .	38	22	18	12	12	11	15	17	33	41	42	41	26
Taber . . .	326	237	216	148	139	36	88	290	322	368	432	488	257
Bow Island . .	22	16	16	9	9	9	18	14	22	31	31	26	19
Medicine Hat .	42	50	35	11	12	23	30	34	58	58	82	94	44
Aldersyde . . .	24	22	21	10	10	11	15	17	27	34	35	30	21
High River . .	4	4	5	1	....	....	2	2	2	3	7	6	3
Drumheller . .	1,375	895	936	545	655	155	285	1,562	1,963	2,142	2,341	2,339	1,266
Big Valley . . .	72	45	42	37	27	24	35	56	63	84	84	89	55
Brooks . . .	33	22	32	10	10	9	10	11	17	28	50	79	26
Hanna . . .	65	50	53	27	30	39	39	32	40	76	105	120	56
Lacombe . . .	41	35	28	9	8	6	6	11	21	36	62	67	27
Frochu . . .	65	52	42	16	16	18	32	47	53	75	114	107	53
Three Hills . .	46	44	41	16	22	24	31	33	40	56	71	86	42
Carbon . . .	16	17	18	4	2	10	10	8	11	12	16	25	12
Battle River . .	50	40	32	1	3	2	3	8	11	34	58	72	26
Camrose . . .	103	82	89	62	32	76	71	70	78	97	179	196	95
Tofield . . .	38	35	36	25	45	62	53	59	85	60	102	115	60
Clover Bar . . .	376	333	331	240	237	142	199	319	381	492	571	634	355
Edmonton . . .	212	190	188	104	89	46	62	112	174	249	338	379	179
Namoo . . .	61	51	50	12	9	....	....	6	27	33	45	86	32
Cardiff . . .	315	272	265	189	161	23	17	55	184	272	309	330	199
Wabamun . . .	35	36	33	31	56	48	60	62	67	71	73	69	53
Pembina . . .	113	106	120	111	113	68	82	102	129	170	203	208	127
Peace River . .	....	....	....	....	....	....	....	....	....	....	....	....	....
Total . . .	5,077	4,012	3,930	2,741	2,799	1,061	1,429	4,035	5,203	6,049	7,007	7,370	4,226

The following table shows the total number of persons employed each month in the BITUMINOUS COAL Field, above and below ground:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total Average
Crow's Nest	1,804	1,833	1,814	1,814	1,613	83	144	834	1,643	1,837	1,915	1,935	1,439
Pass	365	375	372	377	359	61	74	261	324	350	350	329	298
Canmore	502	535	509	458	488	40	44	292	497	567	609	621	430
Brazeau	540	513	443	503	15	42	27	103	252	349	436	497	310
Jasper Park	521	573	394	281	195	39	86	199	327	375	458	487	338
Yellowhead Ps.	390	431	360	316	303	17	16	172	334	415	488	487	311
Mountain Park													
Total	4,122	4,260	3,892	3,749	2,973	16	391	1,861	3,377	3,893	4,256	4,356	3,118

The following table shows the total number of persons employed during each month in the ANTHRACITE COAL Field, above and below ground:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total Average
Banff	306	299	302	294	69	29	34	239	283	295	302	301	229

The following table shows the total number of persons employed during each month in the DOMESTIC, BITUMINOUS, and ANTHRACITE COAL Fields, above and below ground :

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total Average
Domestic ..	5,077	4,012	3,930	2,741	2,799	1,061	1,429	4,035	5,203	6,049	7,007	7,370	4,226
Bituminous ..	4,122	4,269	3,892	3,749	2,973	282	391	1,861	3,377	3,893	4,256	4,356	3,118
Anthracite ..	306	299	302	294	69	29	34	239	283	295	302	301	229
Total	9,505	8,571	8,124	6,784	5,841	1,372	1,854	6,135	8,863	10,237	11,565	12,027	7,581

PER CAPITA PRODUCTION OF MINES IN THE PROVINCE.

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed underground	Tons of coal mined per man employed underground
1906	1,385,000	2,800	494	2,000	692
1907	1,834,745	3,600	509	2,700	679
1908	1,845,000	3,780	488	2,681	688
1909	2,174,329	5,207	417	3,893	566
1910	3,036,757	5,818	504	4,090	742
1911	1,694,564	6,689	253	4,517	375
1912	3,446,349	6,661	517	4,861	708
1913	4,306,346	8,068	533	5,837	737
1914	3,821,739	8,170	467	6,052	631
1915	3,434,891	6,445	532	4,493	764
1916	4,648,604	7,570	614	5,536	839
1917	4,863,414	8,310	595	6,047	804
1918	6,148,620	8,818	697	6,141	1,001
1919	5,022,412	7,573	663	5,150	958

During the year 1909, a strike affecting all the larger mines in the Province lasted for a period of three months.

During the year 1911 a strike affecting all the larger mines in the Province lasted for a period of eight months.

During the year 1917 a strike affecting all the larger mines in the Province lasted for a period of three months.

During the year 1919 a strike affecting all the larger mines in the Province lasted for a period of three months.

PER CAPITA PRODUCTION OF MINES IN THE DOMESTIC COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed underground	Tons of coal mined per man employed underground
1910	878,011	2,307	380	1,676	524
1911	964,700	3,548	271	2,488	391
1912	1,341,389	2,980	450	2,283	587
1913	1,763,225	4,017	438	2,929	601
1914	1,697,401	4,219	402	3,190	532
1915	1,682,922	3,181	529	2,210	761
1916	2,172,801	4,132	525	3,137	692
1917	2,537,829	4,701	539	3,489	727
1918	3,035,061	4,896	619	3,420	887
1919	2,611,009	4,226	617	2,953	884

PER CAPITA PRODUCTION OF MINES IN THE BITUMINOUS COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed underground	Tons of coal mined per man employed underground
1910	1,896,961	2,981	636	2,076	914
1911	649,745	2,641	246	1,820	357
1912	1,926,371	3,243	594	2,353	818
1913	2,374,401	3,562	666	2,645	897
1914	1,953,367	3,529	553	2,632	742
1915	1,626,237	2,921	557	2,103	773
1916	2,335,259	3,142	743	2,258	1,034
1917	2,206,868	3,335	661	2,429	909
1918	2,982,334	3,636	820	2,597	1,109
1919	2,325,787	3,118	745	2,100	1,108

PER CAPITA PRODUCTION OF MINES IN THE ANTHRACITE COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed underground	Tons of coal mined per man employed underground
1910	261,785	530	493	338	774
1911	80,119	500	160	209	383
1912	178,589	438	407	225	793
1913	168,720	489	345	263	641
1914	170,971	422	405	230	743
1915	125,732	343	366	180	698
1916	140,544	296	474	141	996
1917	118,717	284	418	129	920
1918	131,225	286	458	124	1,058
1919	85,616	229	374	95	901

The tables showing the number of men employed in the Bituminous Coal Field include employees at the coke ovens, and in the Anthracite Coal Field employees at the Briquetting plant.

PER CAPITA PRODUCTION OF MINES IN THE DOMESTIC COAL FIELD
By DISTRICTS

Districts	Gross tons of coal mined	Total av- erage No. of men employed	Tons of coal min- ed per man em- ployed	Average No. of men em- ployed un- derground	Tons of coal min- ed per man em- ployed un- derground
Pincher Creek	4,845	18	269	16	303
Lethbridge	597,540	1,168	511	820	729
Magrath	1,816	6	303	6	303
Milk River	6,463	25	259	23	281
Taber	108,210	257	421	195	555
Bow Island	7,334	19	386	18	407
Medicine Hat	22,546	44	512	35	644
Aldersyde	8,091	21	385	19	426
High River	449	3	150	3	150
Drumheller	804,930	1,266	636	881	914
Big Valley	34,334	55	624	39	880
Brooks	8,072	26	310	24	336
Hanna	25,792	56	461	41	629
Lacombe	15,675	27	580	25	627
Trochu	24,198	53	457	28	864
Three Hills	26,192	42	623	33	794
Carbon	4,335	12	361	12	361
Battle River	13,705	26	527	24	571
Camrose	86,582	95	911	45	1,924
Tofield Str'pg Pit	92,912	57	1,630	...	...
Tofield Underground ...	1,637	3	546	2	818
Clover Bar	295,154	355	831	263	1,122
Edmonton	91,596	179	512	136	673
Namau	10,501	32	328	24	438
Cardiff	176,021	199	885	129	1,365
Wabamun	32,174	53	607	37	870
Pembina	109,905	127	865	75	1,465
Peace River .....	...	...	...	...	...
	2,611,009	4,226	617	2,953	884

PER CAPITA PRODUCTION OF MINES IN THE BITUMINOUS COAL FIELD
By DISTRICTS

Districts	Gross tons of coal mined	Total av- erage No. of men em- ployed	Tons of coal min- ed per man em- ployed	Average No. of men em- ployed un- derground	Tons of coal min- ed per man em- ployed un- derground
Crow's Nest Pass	1,187,966	1,439	826	1,024	1,160
Canmore	201,891	300	673	183	1,103
Brazeau	308,990	430	719	325	951
Jasper Park	143,521	310	463	223	644
Yellowhead Pass	209,043	328	637	135	1,548
Mountain Park	274,376	311	882	210	1,307
	2,325,787	3,118	745	2,100	1,108

PER CAPITA PRODUCTION OF MINES IN THE ANTHRACITE COAL FIELD
BY DISTRICTS

District	Gross tons of coal mined	Total av- erage No. of men employed	Tons of coal min- ed per man em- ployed	Average No. of men em- ployed un- derground	Tons of coal min- ed per man em- ployed un- derground
Banff	85,616	229	374	95	901

The following table shows the average number of days in each month on which DOMESTIC Coal was drawn:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Pincher Creek	19.60	13.80	17.40	7.20	17.00	13.66	17.50	15.25	19.00	17.60	22.00	17.60	197.61
Lethbridge	13.40	13.07	21.08	16.25	18.70	18.57	17.14	14.08	21.38	21.57	21.92	22.06	219.22
Magrath	21.00	10.50	16.00	9.50	8.00	13.00	17.50	18.00	23.00	19.66	25.50	21.50	203.16
Milk River	15.00	12.36	12.45	8.87	11.28	11.22	8.30	16.77	18.00	20.67	18.66	19.21	173.69
Taber	10.44	8.25	12.75	9.60	11.33	14.80	13.42	17.33	19.50	20.30	14.83	20.30	172.87
Bow Island	13.50	11.50	13.22	11.57	14.66	12.00	8.88	10.77	17.60	24.00	20.00	17.10	174.80
Medicine Hat	16.50	14.25	11.75	6.00	17.00	15.00	17.75	19.00	20.80	23.40	21.40	21.91	194.76
Aldersyde	19.85	15.70	16.75	13.20	14.66	15.33	16.28	15.12	21.37	24.62	23.00	22.37	218.25
High River	20.00	14.00	5.00	7.00	....	....	15.00	20.00	20.00	20.00	14.50	15.00	150.50
Drumheller	13.91	13.52	16.95	9.08	9.71	13.50	16.40	16.37	24.06	23.36	20.08	23.85	200.99
Big Valley	24.00	21.25	23.50	11.33	9.00	10.33	14.66	15.33	18.00	19.87	23.37	24.75	215.39
Brooks	18.50	23.00	23.00	18.66	19.00	23.50	26.00	24.00	24.50	18.50	22.60	23.66	264.92
Hanna	18.60	15.68	18.68	10.04	12.80	16.00	17.43	19.08	20.14	25.46	20.07	23.38	217.36
Lacombe	16.63	14.08	16.60	13.40	12.80	17.00	12.50	13.66	17.88	22.30	22.00	21.07	199.92
Trochu	14.30	14.50	16.00	11.00	11.50	16.25	16.00	18.12	20.33	19.56	18.18	18.00	193.74
Three Hills	14.50	15.16	16.50	8.00	12.00	17.40	21.00	21.33	24.25	25.50	24.75	19.83	220.22
Carbon	18.16	17.50	19.16	9.00	17.00	19.00	21.33	23.00	19.33	23.00	23.33	22.25	234.06
Battle River	16.31	15.92	14.41	15.00	9.00	5.00	8.00	11.66	13.20	18.80	18.45	21.43	167.19
Camrose	15.50	18.00	19.00	13.60	18.75	23.00	23.75	23.50	23.00	23.33	21.50	23.85	246.78
Tofield	21.00	22.33	22.66	16.00	18.00	20.66	19.66	23.00	22.33	25.66	22.33	24.99	258.62
Clover Bar	21.00	20.22	22.22	13.50	17.57	19.40	19.33	23.00	24.25	24.11	23.33	24.55	252.48
Edmonton	19.75	22.57	22.70	18.75	15.66	10.00	13.66	14.75	19.60	23.16	19.62	21.77	221.99
Namoo	13.75	19.33	10.00	8.50	7.50	....	....	....	15.25	20.75	22.16	17.66	134.90
Cardiff	21.00	16.66	24.66	15.00	13.33	....	....	....	15.66	26.66	24.66	25.00	182.63
Wabamun	12.00	15.00	19.50	15.50	22.00	32.00	22.00	26.00	25.00	23.00	19.00	16.00	229.00
Pembina	16.00	15.00	12.00	18.00	20.00	22.00	24.00	26.00	25.00	26.00	24.00	22.00	150.00
Peace River	....	....	....	....	....	....	....	....	....	....	....	....	....
Average No. of days worked	17.08	15.89	17.07	12.05	13.93	16.02	16.97	18.43	20.39	22.34	21.20	21.23	203.69

• The following table shows the average number of days in each month on which BITUMINOUS Coal was drawn :

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Crow's Nest	24.00	23.00	25.20	17.00	16.80	18.50	18.33	13.00	22.82	26.57	25.21	26.00	256.43
Pass	23.75	21.25	21.00	23.50	22.00	25.00	27.00	17.50	24.00	25.50	24.50	24.00	279.00
Canmore	25.33	21.33	23.00	22.00	20.66	23.50	23.50	18.33	23.83	24.66	20.00	22.50	268.64
Brazeau	25.00	20.50	23.50	22.50	17.00	....	....	....	8.00	21.50	25.25	23.25	186.50
Jasper Park	23.57	16.85	23.75	14.40	12.66	3.00	9.00	16.66	16.00	21.50	20.60	22.83	200.82
Yellowhead Ps.	26.00	24.00	23.00	24.50	17.50	....	....	6.00	25.00	27.00	24.00	24.00	221.00
Mountain Park													
Average No. of days worked	24.60	21.15	23.24	20.65	17.77	17.50	19.45	14.29	19.94	24.45	23.26	23.76	235.39

The following table shows the average number of days in each month on which ANTHRACITE Coal was drawn :

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Banff	13.00	12.00	13.00	11.50	....	....	....	3.00	11.00	14.00	13.00	16.00	106.50

The following table gives the average hours worked per week, each month, by Districts in the DOMESTIC Coal Field:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average for year
Pincher Creek	36.18	27.60	32.15	13.82	31.38	25.82	31.10	29.28	38.88	31.30	40.60	33.78	30.78
Lethbridge	24.72	25.12	38.91	31.20	34.32	35.65	30.48	27.04	41.04	38.34	40.44	42.34	33.81
Magrath	38.76	21.00	29.52	18.24	14.76	24.96	31.10	34.36	44.16	34.94	47.04	40.28	31.66
Milk River	27.60	24.72	22.98	17.01	20.82	21.54	14.74	31.95	36.28	36.74	34.44	36.88	24.33
Taber	19.26	16.50	23.52	18.43	20.92	27.45	23.84	33.27	37.44	36.08	27.40	32.78	26.94
Bow Island	24.90	22.98	24.39	22.21	27.06	23.04	15.76	20.97	33.79	42.66	36.90	32.83	27.24
Medicine Hat	30.42	28.50	21.69	11.52	11.06	28.80	31.54	36.48	39.92	41.59	35.50	42.06	30.34
Aldersyde	36.60	31.38	31.05	25.34	27.06	29.43	28.94	29.08	41.00	43.76	42.45	42.93	34.00
High River	36.90	27.96	9.24	13.44	.....	.....	26.64	38.40	38.40	35.55	26.78	28.80	23.45
Drumheller	25.68	27.04	31.29	17.43	17.92	25.92	29.14	31.81	46.19	41.52	37.06	45.79	31.18
Big Valley	44.28	42.48	43.38	21.75	16.61	19.82	26.06	28.80	34.56	35.32	43.14	47.52	33.56
Brooks	34.14	45.96	42.45	35.82	35.06	45.12	46.20	46.08	47.04	32.88	41.72	45.18	41.28
Hanna	34.32	31.36	34.45	19.26	23.72	30.72	30.98	36.63	38.66	45.25	37.05	44.88	33.87
Lacombe	30.72	28.14	30.64	25.72	23.72	32.64	22.22	26.22	31.92	39.64	39.10	40.45	30.99
Trochu	26.40	29.03	29.52	21.12	21.22	31.20	28.44	34.78	39.03	34.77	33.55	34.56	30.19
Three Hills	26.76	30.30	30.44	15.36	22.16	33.39	37.32	40.95	46.56	45.33	43.46	38.07	34.32
Carbon	33.54	34.98	35.36	17.28	31.38	36.48	37.92	48.00	41.67	40.26	43.06	42.72	36.46
Battle River	30.12	32.00	26.60	28.80	16.61	9.60	14.22	22.38	25.34	33.42	34.08	41.11	26.04
Camrose	20.62	36.00	35.07	26.10	34.62	24.96	42.22	45.12	44.16	41.46	39.69	45.79	38.44
Tofield	38.76	44.64	41.82	30.72	33.22	39.66	34.94	44.16	42.87	45.60	41.22	47.94	40.30
Clover Bar	38.76	40.44	40.98	25.92	32.43	37.24	34.35	44.16	46.56	42.86	43.06	47.13	39.49
Edmonton	36.44	45.12	41.89	36.00	28.90	19.20	24.28	28.32	37.63	41.16	36.22	41.79	34.59
Namoo	25.38	38.64	18.46	16.32	13.54	.....	.....	.....	29.28	36.88	40.90	33.95	21.02
Cardiff	38.76	33.80	45.52	28.80	24.60	.....	.....	.....	30.09	47.18	45.32	48.00	28.45
Wabamun	22.20	30.00	36.00	29.76	40.60	42.24	39.10	40.32	42.24	40.26	35.07	30.72	34.90
Pembina	29.52	30.00	22.16	34.56	36.90	42.24	42.66	48.00	48.00	46.20	44.31	42.24	38.95
Peace River	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	31.50	31.76	31.50	23.12	25.70	28.64	30.15	35.86	39.14	39.70	37.13	40.75	31.74

The following table gives the average hours worked per week, each month, by District, in the BITUMINOUS Coal Field:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average for year
Crow's Nest													
Pass	44.30	45.96	46.50	32.64	30.96	35.52	32.58	24.96	43.81	47.23	46.54	48.00	39.96
Cannore	43.80	42.48	38.76	45.12	40.56	48.00	48.00	33.60	46.08	45.33	45.22	46.08	43.47
Brazeau	46.74	42.66	42.42	42.24	38.10	45.12	41.77	35.19	45.75	44.19	36.92	43.20	41.86
Jasper Park . .	46.14	40.98	43.38	43.20	31.38	....	....	....	15.85	38.22	46.84	44.64	29.06
Yellowhead Pk.	43.50	33.72	43.80	27.60	23.34	5.76	15.59	31.98	20.96	38.22	38.02	44.13	31.29
Mountain Park	48.00	48.00	42.42	47.04	32.28	....	....	11.52	48.00	48.00	44.30	46.08	34.44
Average	45.41	42.30	42.88	39.64	32.77	33.60	34.57	27.43	38.28	45.12	42.93	43.51	36.68

The following table gives the average hours worked per week, each month, by District in the ANTHRACITE Coal Field:

District	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average for year
Banff	48.00	44.28	48.00	44.16	....	....	....	11.52	42.24	48.00	48.00	48.00	33.24

The following table shows the amount of mine timber used during the year:

DOMESTIC COAL FIELD

Districts	Ties	Round timber in Lineal feet	Square timber in Square feet B.M.	Slabs in Cords	Cord-wood No. of Cords
Pincher Creek	4,000	22,307	.....	..	.....
Lethbridge	40,285	2,731,443	1,915,590	90	1,242
Magrath	6,400	.....	..	.....
Milk River	24,766	.....	..	.....
Taber	151,493	12,425	..	.....
Bow Island	25,621	.....	..	.....
Medicine Hat	69,870	.....	..	.....
Aldersyde	31,660	.....	..	.....
High River	5,650	.....	..	.....
Drumheller	64,263	1,536,064	35,000	..	76
Big Valley	120,577	.....	..	.....
Brooks	55,473	.....	9	.....
Hanna	900	50,027	12,710	1	.....
Lacombe	41,813	.....	..	.....
Trochu	56,980	.....	..	.....
Three Hills	38,042	.....	25	.....
Carbon	14,625	.....	..	.....
Battle River	69,872	.....	..	.....
Camrose	114,750	.....	..	.....
Tofield	7,000	.....	..	.....
Clover Bar	937,004	.....	..	.....
Edmonton	496,956	3,917	150	.....
Namoo	27,920	.....	..	.....
Cardiff	146,152	.....	..	.....
Wabamun	280,400	.....	..	.....
Pembina	249,400	154	..	.....
Peace River
Total	109,448	7,312,265	1,979,796	275	1,318

BITUMINOUS COAL FIELD

Districts	Round timber in Lineal feet	Square timber in Square feet B.M.	Lagging	Cord-wood No. of Cords
Crow's Nest Pass	2,218,870	929,589	250,376	.....
Canmore	250,450	.....	65,000	.....
Brazeau	1,114,380	.....	.....	.....
Jasper Park	358,377	.....	.....	.....
Yellowhead Pass	147,067	.....	.....	.....
Mountain Park	695,210	.....	120,000	.....
Total	4,784,354	929,589	435,376	.....

ANTHRACITE COAL FIELD

District	Round timber in Lineal feet	Square timber in Square feet B.M.	Lagging	Cord-wood No. of Cords
Banff	130,567	.....	203,531	.....

EXPLOSIVES

The following table shows the quantity of Explosives used in pounds for blasting coal in the DOMESTIC Coal Field:

Districts	Name of Explosive							Total
	Mono-bel No. 1	Black Powder	Polar Permi-tite	Dyna-mite	Stump-ing Powder	Viking No. 1	Dyno-bel	
Pincher Creek	2,860	1,421	...	...	...	...	...	4,281
Lethbridge .....	...	22,361	...	14,041	...	21,498	...	57,900
Magrath .....	...	1,750	...	...	...	...	...	1,750
Milk River .....	...	5,645	...	95	...	...	...	5,740
Taber	300	41,195	...	...	...	...	...	41,495
Bow Island .....	...	7,550	...	...	...	...	...	7,550
Medicine Hat .....	...	9,275	...	200	...	...	...	9,475
Aldersyde .....	...	3,150	...	...	...	...	...	3,150
High River	100	480	...	...	...	...	...	580
Drumheller	12,947	212,977	...	111	...	18,832	...	244,867
Big Valley .....	...	2,225	...	...	...	...	...	2,225
Brooks	50	6,160	...	...	...	...	...	6,210
Hanna .....	...	11,002	...	...	...	...	...	11,002
Lacombe .....	...	6,191	...	...	...	...	...	6,191
Trochu	85	8,840	...	300	50	...	...	9,275
Three Hills .....	...	12,151	...	...	35	...	...	12,186
Carbon .....	...	1,600	...	...	...	...	...	1,600
Battle River .....	...	890	...	50	...	...	...	940
Camrose	150	50	...	...	...	...	...	200
Tofield	15	3,475	...	2,300	1,800	...	...	7,590
Clover Bar	600	58,296	...	...	2,000	3,209	...	64,105
Edmonton	4,957	5,650	2,650	...	75	5,753	3,300	22,385
Namoo	153	200	...	...	25	...	...	378
Cardiff	7,750	40,500	...	...	...	8,985	...	57,235
Wabamun	1,308	...	...	...	...	...	...	1,308
Pembina	15,311	...	...	...	...	18	...	15,329
Peace River .....	...	...	...	...	...	...	...	...
Total	46,586	463,034	2,650	17,097	3,985	58,295	3,300	594,947

The following table shows the quantity of Explosives used in pounds for blasting coal in the BITUMINOUS Coal Fields:

Districts	Name of Explosive							Total
	Mono-bel No. 1	Black Powder	Polar Permi-tite	Dyna-mite	Stump-ing Powder	Viking No. 1	Dyno-bel	
Crow's Nest Pass	1,037	...	...	...	...	...	131,565	132,602
Canmore .....	...	...	...	...	...	30,000	6,600	36,600
Brazeau	7,475	...	...	...	...	1,750	...	9,225
Jasper Park	9,812	...	1,806	...	...	...	...	11,618
Yellowhead Pass ..	17,566	...	500	...	...	...	38,075	56,141
Mountain Park ..	17,825	...	...	...	...	1,500	...	19,325
Total	53,715	...	2,306	...	...	33,250	176,240	265,511

The following table shows the quantity of Explosives used in pounds for blasting coal in the ANTHRACITE Coal Field:

District	Name of Explosive	
	Monobel No. 1	Total
Banff	21,100	21,100

The following table shows the number of tons of DOMESTIC Coal produced per pound of explosive used for blasting coal:

Districts	No. of tons mined	No. of lbs. of explosives used	Tons of coal mined per lb. of explosive used
Pincher Creek	4,845	4,281	1.13
Lethbridge	597,540	57,900	10.28
Magrath	1,816	1,750	1.04
Milk River	6,463	5,740	1.12
Taber	108,210	41,495	2.60
Bow Island	7,334	7,550	.97
Medicine Hat	22,546	9,475	2.38
Aldersyde	8,091	3,150	2.57
High River	449	580	.77
Drumheller	804,930	244,867	3.28
Big Valley	34,334	2,225	15.44
Brooks	8,072	6,210	1.30
Hanna	25,792	11,002	2.34
Lacombe	15,675	6,191	2.53
Trochu	24,198	9,275	2.60
Three Hills	26,192	12,186	2.15
Carbon	4,335	1,600	2.71
Battle River	13,705	940	14.58
Camrose	86,582	200	432.91
Tofield	94,549	7,590	432.91
Clover Bar	295,154	64,105	4.64
Edmonton	91,596	22,385	4.05
Namoo	10,501	378	27.78
Cardiff	176,021	57,235	3.07
Wabamun	32,174	1,308	24.60
Pembina	109,905	15,329	7.10
Peace River .....	.....	.....	.....
Total	2,611,009	594,947	4.40

The following table shows the number of tons of BITUMINOUS Coal produced per pound of explosive used for blasting coal:

Districts	No. of tons mined	No. of lbs. of explosives used	Tons of coal mined per lb. of explosive used
Crow's Nest Pass	1,187,966	132,602	8.96
Canmore	201,891	36,600	5.51
Brazeau	308,990	9,225	33.49
Jasper Park	143,520	11,618	12.35
Yellowhead Pass	209,043	56,141	3.70
Mountain Park	274,376	19,325	14.20
Total	2,325,787	265,511	8.76

The following table shows the number of tons of ANTHRACITE coal produced per pound of explosives used for blasting coal:

Districts	No. of tons mined	No. of lbs. of explosives used	Tons of coal mined per lb. of explosive used
Banff	85,616	21,100	4.06

Estimated number of shots fired for blasting coal in the DOMESTIC Coal Field:

Districts	Squibs	Fuse	Electric Detonator	Electric Squib	Total
Pincher Creek	1,415	6,347	.....	.....	7,762
Lethbridge	21,316	1,660	52,117	26,000	101,093
Magrath	2,620	.....	.....	.....	2,620
Milk River	5,713	225	.....	.....	5,938
Taber	31,611	750	.....	.....	32,361
Bow Island	7,490	200	.....	.....	7,690
Medicine Hat	7,060	297	750	.....	8,107
Aldersyde	5,300	.....	.....	.....	5,300
High River .....	.....	765	.....	.....	765
Drumheller	700	148,920	57,079	.....	206,699
Big Valley .....	.....	2,087	.....	.....	2,087
Brooks	3,046	1,230	.....	.....	4,276
Hanna	1,433	9,184	.....	.....	10,617
Lacombe	2,362	1,570	.....	.....	3,932
Trochu	4,090	6,135	.....	.....	10,225
Three Hills	965	8,590	.....	.....	9,555
Carbon	1,595	.....	.....	.....	1,595
Battle River .....	.....	795	.....	.....	795
Camrose .....	.....	40	550	.....	590
Tofield .....	.....	5,240	.....	.....	5,240
Clover Bar .....	.....	42,818	4,556	.....	47,374
Edmonton	230	8,971	19,415	.....	28,616
Namoo .....	.....	405	.....	.....	405
Cardiff .....	.....	50,243	.....	.....	50,243
Wabamun .....	.....	4,360	.....	.....	4,360
Pembina .....	.....	.....	15,910	.....	15,910
Peace River .....	.....	.....	.....	.....	.....
Total	96,946	300,832	150,377	26,000	574,155

Estimated number of shots fired for blasting coal in the BITUMINOUS Coal Field:

Districts	Squibs	Fuse	Electric Detonator		Total
Crow's Nest Pass	136,967	....	136,967
Canmore	40,000	....	40,000
Brazeau	8,100	5,098	....	13,198
Jasper Park	20	17,611	....	17,631
Yellowhead Pass	300	47,754	....	48,054
Mountain Park	33,160	....	33,160
Total	8,420	280,590	....	289,010

Estimated number of shots fired in blasting coal in the ANTHRACITE Coal Field:

Districts	Squibs	Fuse	Electric Detonator	Electric Squib	Total
Banff	18,970	....	18,970

Number of Miss-Fire Shots recorded in blasting coal in the DOMES TIC Coal Field:

Districts	METHOD OF SHOT-FIRING				
	Squib	Fuse	Electric Detonator	Electric Squib	Total
Pincher Creek	20	4	....	....	24
Lethbridge	6	5	192	190	393
Magrath .....	..	..	...	...	...
Milk River	24	6	...	...	30
Taber .....	..	4	...	...	4
Bow Island	4	3	...	...	7
Medicine Hat .....	..	4	...	...	4
Aldersyde	10	..	...	...	10
High River .....	..	20	...	...	20
Drumheller	5	152	115	...	272
Big Valley .....	..	2	...	...	2
Brooks	1	3	...	...	4
Hanna	35	12	...	...	47
Lacombe	1	4	...	...	5
Trochu	16	11	...	...	27
Three Hills	18	3	...	...	21
Carbon .....	..	..	...	...	..
Battle River .....	..	..	...	...	..
Camrose .....	..	..	...	...	..
Tofield .....	..	..	...	...	..
Clover Bar .....	..	14	13	...	27
Edmonton .....	..	20	2	...	22
Namoo .....	..	..	...	...	..
Cardiff .....	..	40	...	...	40
Wabamun .....	..	..	14	...	14
Pembina .....	..	..	...	...	..
Peace River .....	..	..	...	...	..
Total	140	307	336	190	973

Number of Miss-Fire Shots recorded in blasting coal in the BITUMINOUS Coal Field:

Districts	METHOD OF SHOT-FIRING				
	Squib	Fuse	Electric Detonator	Electric Squib	Total
Crow's Nest Pass	107	...	107
Canmore	22	...	22
Brazeau	35	8	...	43
Jasper Park	12	...	12
Yellowhead Pass	203	...	203
Mountain Park	34	...	34
Total	35	386	...	421

Number of Miss-Fire Shots recorded in blasting coal in the ANTHRACITE Coal Field: :

District	METHOD OF SHOT-FIRING				
	Squib	Fuse	Electric Detonator	Electric Squib	Total
Banff	14	...	14

The following table shows the quantity of explosives used in pounds for blasting Rock in Coal Mines in the Province:

Districts	NAME OF EXPLOSIVE					Total
	Dyna- mite	Viking	Black Powder	Monobel No. 1	Polar Permi- tite	
Crow's Nest Pass	1,585	300	...	...	5,131	7,016
Pincher Creek	50	...	...	25	...	75
Letnbridge	70	...	...	...	...	70
Magrath	...	...	...	...	...	...
Milk River	...	...	...	...	...	...
Taber	2,388	...	205	...	95	2,688
Bow Island	50	...	25	...	...	75
Medicine Hat	250	...	...	...	516	766
Aldersville	...	...	25	...	...	25
High River	...	...	...	260	...	260
Canmore	131,855	...	...	...	6,000	137,855
Banff	...	...	...	...	15,100	15,100
Drumheller	284	236	64	1,680	900	3,164
Big Valley	...	...	...	...	...	...
Brazeau	...	...	...	...	487	487
Brooks	45	...	...	...	...	45
Hanna	325	...	50	...	...	375
Lacombe	120	...	...	...	...	120
Trochu	52	...	...	...	...	52
Three Hills	1,420	...	...	...	...	1,420
Carbon	...	...	...	...	...	...
Battle River	402	...	...	...	...	402
Camrose	...	...	...	...	...	...
Tofield	...	...	...	...	...	...
Clover Bar	...	14	...	...	...	14
Edmonton	...	...	...	100	149	249
Namoo	...	...	...	...	...	...
Cardiff	...	...	...	...	...	...
Wabamun	...	...	...	...	...	...
Pembina	...	...	...	...	...	...
Jasper Park	40	...	...	8	1,850	1,898
Yellowhead Pass	...	...	...	...	4,966	4,966
Mountain Park	...	...	...	...	1,727	1,727
Peace River	...	...	...	...	...	...
Total	138,936	550	369	2,073	36,921	173,849

Estimated number of Shots Fired for blasting Rock in Coal Mines in the Province:

Districts	Electric Detonator	Electric Squib	Fuse	Squib	Total
Crow's Nest Pass ..	2,036	...	718	...	2,754
Pincher Creek .....	...	...	56	...	56
Lethbridge	372	...	...	...	372
Magrath .....	...	...	...	...	...
Milk River .....	...	...	...	...	...
Taber	205	...	3,008	220	3,433
Bow Island .....	...	...	350	30	380
Medicine Hat	200	...	...	200	400
Aldersyde .....	...	...	...	50	50
High River .....	...	...	320	...	320
Canmore	3,500	...	8,585	...	12,085
Banff	9,485	...	...	...	9,485
Drumheller	1,945	...	2,584	...	4,529
Big Valley .....	...	...	...	...	...
Brazeau	1,584	...	...	...	1,584
Brooks .....	...	...	177	...	177
Hanna .....	...	...	426	...	426
Jacombe .....	...	...	240	...	240
Trochu .....	...	...	52	...	52
Three Hills .....	...	...	1,305	...	1,305
Carbon .....	...	...	...	...	...
Battle River	800	...	4	...	804
Camrose .....	...	...	...	...	...
Tofield .....	...	...	...	...	...
Clover Bar	20	...	...	...	20
Edmonton	240	...	150	...	390
Namoo .....	...	...	...	...	...
Cardiff .....	...	...	...	...	...
Wabamun .....	...	...	...	...	...
Pembina .....	...	...	...	...	...
Jasper Park	1,850	...	12	...	1,862
Yellowhead Pass ..	997	...	4,226	...	5,223
Mountain Park	2,129	...	...	...	2,129
Peace River .....	...	...	...	...	...
Total	25,363	...	22,213	500	48,076

The following table gives the number of Miss-Fire Shots recorded in blasting Rock in Coal Mines in the Province:

Districts	Electric Detonator	Electric Squib	Fuse	Squib	Total
Crow's Nest Pass ..	1	.	5	.	6
Pincher Creek ....	.	.	3	.	3
Lethbridge	3	.	.	.	3
Magrath .....	.	.	.	.	.
Milk River .....	.	.	.	.	.
Taber .....	.	.	5	.	5
Bow Island .....	.	.	.	.	.
Medicine Hat .....	.	.	.	.	.
Aldersyde .....	.	.	.	.	.
High River .....	.	.	.	.	.
Canmore	2	.	.	.	2
Banff	8	.	.	.	8
Drumheller	2	.	3	.	5
Big Valley .....	.	.	2	.	2
Brazeau	7	.	.	.	7
Brooks .....	.	.	4	.	4
Hanna .....	.	.	2	.	2
Lacombe .....	.	.	.	.	.
Trochu .....	.	.	.	.	.
Three Hills .....	.	.	11	.	11
Carbon .....	.	.	.	.	.
Battle River .....	.	.	.	.	.
Camrose .....	.	.	.	.	.
Tofield .....	.	.	.	.	.
Clover Bar .....	.	.	.	.	.
Edmonton .....	.	.	3	.	3
Namoo .....	.	.	.	.	.
Cardiff .....	.	.	.	.	.
Wabamun .....	.	.	.	.	.
Pembina .....	.	.	.	.	.
Jasper Park .....	.	.	.	.	.
Yellowhead Pass	5	.	.	.	5
Mountain Park	4	.	.	.	4
Peace River .....	.	.	.	.	.
Total	32	..	38	..	70

No statistics are available as to the cause of miss-fires.

ELECTRICITY

The rules for the Installation and Use of Electricity in or about mines require a return to be made to the Department on or before January 21st of each year, giving size, type and any other particulars which may be required of electrical apparatus in use above and below ground. According to the returns received from the different mines, electricity was used at 42 mines in 1919. A summary of these returns regarding the horse-power of electrical apparatus in use is given below:

Districts	No. of Mines using Electricity	Horse-power of electrical apparatus in use		Total Horse power
		Above ground	Below ground	
Crow's Nest Pass	5	5,567	200	5,767
Pincher Creek .....	..	....	..	....
Lethbridge	5	684½	387	1,071½
Magrath .....	..	....	..	....
Milk River .....	..	....	..	....
Taber	3	200	313	513
Bow Island .....	..	....	..	....
Medicine Hat	1	..	60	60
Aldersyde .....	..	....	..	....
High River .....	..	....	..	....
Canmore	1	450	100	550
Banff	1	215	..	215
Drumheller	12	633½	401	1,034½
Big Valley .....	..	....	..	....
Brazeau	1	417	40	457
Brooks .....	..	....	..	....
Hanna .....	..	....	..	....
Lacombe .....	..	....	..	....
Trochu .....	..	....	..	....
Three Hills .....	..	....	..	....
Carbon .....	..	....	..	....
Battle River .....	..	....	..	....
Camrose .....	..	....	..	....
Tofield .....	..	....	..	....
Clover Bar	2	60	111	171
Edmonton	2	60	22½	82½
Namoo .....	..	....	..	....
Cardiff	2	..	170	170
Wabamun	1	18	3½	21½
Pembina	1	115	471	586
Jasper Park	2	170	..	170
Yellowhead Pass	1	102½	66	168½
Mountain Park	2	170	65	235
Peace River .....	..	....	..	....
Total	42	8,862½	2,410	11,272½

A closer estimate of the extent to which electricity is used in the different districts may be made by considering the number of tons of coal raised per electrical horse-power employed in all mines under The Mines Act. The following table will give this information:

TONS OF COAL PER ELECTRICAL HORSE-POWER EMPLOYED

Districts	Tons of coal mined in 1919	Above ground	Below ground	Total above and below ground
Crow's Nest Pass	1,187,966	213	5,939½	206
Pincher Creek	4,845	...	...	...
Lethbridge	597,540	873	1,544	557
Magrath	1,816	...	...	...
Milk River	6,463	...	...	...
Taber	108,210	541	346	211
Bow Island	7,334	...	...	...
Medicine Hat	22,546	...	375	375
Aldersyde	8,091	...	...	...
High River	449	...	...	...
Canmore	201,891	448	2,018	367
Banff	85,616	398	...	398
Drumheller	804,930	1,270	2,007	778
Big Valley	34,334	...	...	...
Brazeau	308,990	741	7,725	676
Brooks	8,072	...	...	...
Hanna	25,792	...	...	...
Lacombe	15,675	...	...	...
Trochu	24,198	...	...	...
Three Hills	26,192	...	...	...
Carbon	4,335	...	...	...
Battle River	13,705	...	...	...
Camrose	86,582	...	...	...
Tofield	94,549	...	...	...
Clover Bar	295,154	4,919	2,659	1,726
Edmonton	91,596	1,526	4,071	1,170
Namoo	10,501	...	...	...
Cardiff	176,021	...	1,035	1,035
Wahamun	32,174	1,793	9,478	1,496
Pembina	109,905	955	233	186
Jasper Park	143,521	844	...	844
Yellowhead Pass	209,043	2,039	3,167	1,241
Mountain Park	274,376	1,614	4,221	1,167
Peace River .....	...	...	...	...

This table is useful to show by comparison with other years the growth or decline in the use of electricity in the Province as a whole and in each district taken separately.

The number of electrically driven coal-cutting machines in use at the end of the year was thirty-five.

No accidents were reported in connection with the use of electricity during the year.

COAL-CUTTING MACHINERY

District	No. of coal-cutting machines operated by		Tons of coal Mined by	
	Electricity	Compress- ed Air	Electricity	Compress- ed Air
Crow's Nest Pass .....	..	..	.....	.....
Pincher Creek .....	..	..	.....	.....
Lethbridge .....	..	99	.....	443,672
Magrath .....	..	..	.....	.....
Milk River .....	..	..	.....	.....
Taber	1	41	5,131	67,136
Bow Island .....	..	..	.....	.....
Medicine Hat	2	4	3,764	12,162
Aldersyde .....	..	..	.....	.....
High River .....	..	..	.....	.....
Canmore .....	..	1	.....	3,400
Banff .....	..	..	.....	.....
Drumheller	12	41	213,622	203,298
Big Valley .....	..	..	.....	.....
Brazeau .....	..	3	.....	21,325
Brooks .....	..	..	.....	.....
Hanna .....	..	..	.....	.....
Lacombe .....	..	..	.....	.....
Trochu .....	..	3	.....	7,355
Three Hills .....	..	2	.....	5,712
Carbon .....	..	..	.....	.....
Battle River .....	..	..	.....	.....
Camrose .....	..	..	.....	.....
Tofield .....	..	..	.....	.....
Clover Bar	3	7	92,898	33,110
Edmonton .....	..	8	.....	48,016
Namoo .....	..	..	.....	.....
Cardiff	5	..	101,375	.....
Wabamun .....	..	..	.....	.....
Pembina	5	..	109,974	.....
Jasper Park .....	..	..	.....	.....
Yellowhead Pass	7	..	.....	83,536
Mountain Park .....	..	..	.....	.....
Peace River .....	..	..	.....	.....
Total	35	209	526,744	928,722

ACCIDENTS

Summary table showing Accidents occurring in Mines during 1906 to 1919 inclusive:

Year	Output	Accidents			Tons of Coal Mined per Accident		
		Fatal	Serious	Slight	Fatal	Serious	Slight
1906	1,385,000	10	11	20	138,500	125,909	69,250
1907	1,834,745	19	18	68	96,565	101,930	26,981
1908	1,845,000	11	38	13	167,727	48,552	141,923
1909	2,174,329	9	42	18	241,952	51,769	120,796
1910	3,036,757	61*	41	58	49,782	71,067	52,375
1911	1,694,564	7	32	45	242,080	52,955	37,656
1912	3,446,349	21	38	58	164,111	90,693	59,419
1913	4,306,346	28	60	83	152,789	71,772	51,883
1914	3,821,729	209**	44	50	18,286	86,857	76,434
1915	3,434,891	18	33	33	190,827	104,087	104,087
1916	4,648,604	20	51	34	232,430	91,149	136,723
1917	4,863,414	24	62	39	202,642	78,442	124,703
1918	6,148,620	22	60	77	279,483	102,477	79,860
1919	5,022,412	21	56	54	239,162	89,685	93,008
Total	47,662,770	480	586	650	99,295	81,336	73,327

*Including thirty-one deaths caused by the Bellevue Explosion.

**Including one hundred and eighty-nine deaths caused by the Hillcrest Explosion.

Table showing Accidents during 1919 classified according to the coal field in which they occurred.

District	Output	Accidents			Tons of Coal Mined per Accident		
		Fatal	Serious	Slight	Fatal	Serious	Slight
Domestic ..	2,611,009	9	28	32	290,112	93,250	81,594
Bituminous ..	2,325,787	12	28	22	193,815	83,064	105,717
Anthracite ..	85,616	..	..	..	.....	.....	.....

Classification of Accidents according to outputs of mines which produced during the year 1919:

	Under 10,000 tons	From 10,000 to 50,000 tons	From 50,000 to 100,000 tons	From 100,000 to 200,000 tons	From 200,000 to 300,000 tons	Total
Fatal	2	2	4	5	8	21
Serious	6	11	10	7	22	56
Slight	9	15	8	18	4	54

Table showing number of tons of coal extracted per accident in mines which produced during 1919:

	Under 10,000 tons	From 10,000 to 50,000 tons	From 50,000 to 100,000 tons	From 100,000 to 200,000 tons	From 200,000 to 300,000 tons
Fatal	121,492	490,297	322,272	149,808	182,115
Serious	40,497	89,145	128,809	107,006	66,224
Slight	26,987	65,373	161,136	41,613	364,230
Total	18,691	35,021	58,595	24,968	42,615

The following tables show the number of tons produced per accident.

DOMESTIC COAL MINES

Districts	Output	No. of men employed	No. of tons produced per accident			
			Fatal	Serious	Slight	Total
Pincher Creek ..	4,845	18	.....	.....	.....	.....
Lethbridge ..	597,540	1,168	597,540	149,385	149,385	66,392
Magrath ..	1,816	6	.....	.....	.....	.....
Milk River ..	6,463	25	.....	.....	.....	.....
Taber ..	108,210	257	108,210	36,070	108,210	21,622
Bow Island ..	7,334	19	.....	.....	.....	.....
Medicine Hat ..	22,546	44	22,546	11,273	.....	7,515
Aldersyde ..	8,091	21	.....	.....	.....	.....
High River ..	449	3	.....	.....	.....	.....
Drumheller ..	804,930	1,266	268,310	201,232	114,950	57,495
Big Valley ..	34,334	55	.....	.....	.....	.....
Brooks ..	8,072	26	.....	.....	.....	.....
Hanna ..	25,792	56	.....	.....	6,448	6,448
Lacombe ..	15,675	27	.....	.....	.....	.....
Trochu ..	24,198	53	24,198	12,099	.....	8,066
Three Hills ..	26,192	42	.....	13,096	.....	13,096
Carbon ..	4,335	12	.....	.....	.....	.....
Battle River ..	13,705	26	.....	.....	.....	.....
Camrose ..	86,582	95	.....	.....	.....	.....
Tofield ..	94,549	60	.....	47,274	.....	47,274
Clover Bar ..	295,154	355	295,154	98,385	.....	73,788
Edmonton ..	91,596	179	.....	45,798	7,633	6,542
Namoo ..	10,501	32	.....	.....	10,501	10,501
Cardiff ..	176,021	199	.....	88,010	88,010	44,005
Wabamun ..	32,174	53	.....	.....	.....	.....
Pembina ..	109,905	127	109,905	59,952	109,905	27,476
Peace River ..	.....	...	.....	.....	.....	.....
Total ..	2,611,009	4,226	290,112	93,464	81,594	37,840

BITUMINOUS COAL MINES

Districts	Output	No. of men employed	No. of tons produced per accident			
			Fatal	Serious	Slight	Total
Crow's Nest						
Pass ..	1,187,966	1,439	593,983	91,382	296,091	62,419
Canmore ..	201,891	298	40,378	201,891	.....	33,648
Brazeau ..	308,990	430	102,996	51,498	.....	34,336
Jasper Park ..	143,521	310	.....	143,521	.....	143,521
Yellowhead Ps..	209,043	328	.....	69,681	104,521	41,808
Mountain Park	274,376	311	137,188	68,594	17,148	12,471
Total ..	2,325,787	3,118	193,815	83,064	105,718	37,513

ANTHRACITE COAL MINES

Banff ..	85,616	229				
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LIST OF ACCIDENTS WHICH HAVE OCCURRED IN THE DOMESTIC FIELD IN 1919.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Jan.	4 The Trust & Guarantee Co., Ltd.	Alec Tarnow	23	Driver	He was driving a spike team hauling a trip of loaded cars from No. 3 Left Butt entry when one of the horses stumbled against the door, which had been propped open causing it to close and jamming him between the door and first car of the trip. Breaking his leg.
Feb.	6 Canadian Pacific Railway Co., Shaft No. 6, Lethbridge	Mike Paharo	18	Trapper	He was pulling a trip of cars and while taking the grip off the rope he slipped and got his foot caught by the car.
Feb.	6 The Cardiff Collieries, Ltd.	Steve Maxmuck	20	Driver	He was taking in a trip of empty cars when a car went off the track causing the tail chain to hurt his knee against a timber.
Feb.	6 North American Collieries, Ltd.	Dan McMullen	29	Traffic Manager	Owing to a shortage of help this man was gripping and could not release grip from endless rope derauling car, pinning him under car and against prop. Left collar bone broken, cut across shoulder and cut from eye-brow to eye-brow, nose split and broken, several cuts and bruises about scalp.
Feb.	17 P. J. McPeak	John Boychuck	27	Miner	While undercutting, a piece of clay fell on his finger crushing it.
Feb.	20 Ajax Coal & Mining Co., Ltd.	R. Barber	32	Loader	He was struck by a fall of top coal which broke his left leg above and below the knee; also cutting his nose and lip. Death resulted from shock on the 21st February, 1919.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Feb. 21	Rosedale Coal and Clay Products Co., Ltd.	Sam. J. Wallace...	54	Timberman	He was making a wedge when his axe slipped cutting his left hand. Severed arteries and tendons.
Feb. 23	Keith & Fulton	Mahamed Naray...	36	Driver	He was riding between the cars on a trip of loaded cars and stepped off while cars were in motion being caught between the cars and timber. Bruised shoulders and chest and some ribs crushed.
Feb. 25	City Collieries, Ltd.	D. Harris	65	Top Cager	A bar which he was using slipped and struck him on the temple.
March 13	The Ellis Coal Co., Ltd.	Louis Pernerl	35	Miner	He was barring down coal when a piece of rock fell from the roof striking him on the head and shoulder. Left shoulder badly bruised, arm broken and scalp wound.
March 14	Namao Collieries, Ltd.	Fred Buxton	34	Overman	He was on top of a box car trying to loosen the brake when he fell to the ground. Bruised left ankle.
March 24	P. J. McPeak	Albert Burnash	28	Miner	He was pushing cars when some cars ahead ran back crushing him between the car and timbers breaking a bone in his wrist.
April 1	City Collieries, Ltd.	Chas. Knowles	35	Pusher	He was pushing cars and strained his back causing Lumbago.
April 8	Redcliff Pressed Brick Co., Ltd., Shale Mine	Alfred Womersley	34	Miner	Piece of Shale about 2 lbs. fell from the roof, he staggered, fell down and in doing so twisted and broke his leg.
May 21	City Collieries, Ltd.	Wm. Williams	55	Miner	Piece of coal struck his right eye. Bruised eye.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
June 18	North American Collieries, Ltd., Pembina	P. Paterson	27	Miner	He was attempting to move a heavy timber from the ground when he slipped catching his thumb between the timber and a steel coal car. Thumb on left hand badly crushed probably necessitating amputation of thumb.
July 2	Redcliff Brick & Coal Co., Ltd.	Jacob Riley	54	Track Repairer	He was working on the track from the Shale mine and had stepped out of the way of a trip and was struck by some cars that became derailed from the coal track. Right leg and right arm broken.
July 26	Andrew Molloy	Robert Taylor	46	Miner	He was lifting the end of a car that was off the track and slipped straining his back.
Aug. 14	Wm. R. Walsh	Paul Bianco	33	Miner	He was on the parting at the foot of the slope a trip of loaded cars was being hoisted up the slope when the rope broke allowing the cars to run back down catching him against a post. Bruised leg and ear, cut on chin.
Aug. 18	Rosedale Coal & Clay Products Co., Ltd.	M. Jephson	24	Miner	Had been drilling a hole in the bottom coal and was in the act of sharpening his drill when a piece of coal and clay fell from the roof striking him on the head and leg. Fracturing his skull and left leg. Fatal.

THE MINES BRANCH

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Aug. 19	Regal Collieries, Ltd.	W. D. Frilmer....	40	Timberman Helper	He was assisting in chaining up a cave when a piece of rock fell from the roof striking him on the back. Spine injured.
Aug. 21	Atlas Coal Co., Ltd.	J. W. Blockley....	30	Bottom-man	He was working at the foot of the slope when a trip of loaded cars that were being hoisted up the slope broke away catching him. Compound fracture of the leg from the effects of which he died August 28, 1919.
Aug. 22	Regal Collieries, Ltd.	D. Miller.....	48	Machine-runner	He was operating a machine when it slipped off the board falling onto his leg. Right leg broken.
Aug. 27	North American Collieries, Ltd., Coalhurst.	John Lostuk.....	23	Driver	He was driving a horse attached to an empty car when a detonator exploded by being struck by the tail chain, no record of how the detonator came to be lying there. Slight cut on head and dust blown in his eyes.
Sept. 6	City Collieries, Ltd.	Thomas Harris....	31	Pusher	He was pushing an empty car off the cage at the shaft bottom when a small piece of coal fell down the shaft and struck him on the back. Bruised back.
Sept. 6	Rose Deer Coal Mining Co., Ltd.	John Griffiths....	49	Miner	He was loading a mine car when a piece of top coal fell and struck him on the head. Severe scalp wounds.
Sept. 9	Geo. W. Halliday	Harry Stenhouse..	34	Miner	He was mining coal when a piece of coal fell from the fan striking him on the knee. Right knee bruised and slightly cut.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Sept. 9	Excelsior Collieries, Ltd.	M. Leonich	40	Miner	He was in the act of placing a sett of timber when a piece of the roof dropped on him. Three ribs fractured and left lung punctured by ribs.
Sept. 12	Excelsior Collieries, Ltd.	Jasper Nocoter	26	Roperider	He was taking trip of empty cars down the slope riding on the last car. In jumping off he landed on a loose rock which turned. Sprained left ankle.
Sept. 17	City Collieries, Ltd.	R. Williams	44	Miner	He was shearing the face of his place when a piece of coal fell from the roof striking him on the leg. Bruised leg.
Sept. 19	P. J. McPeak	E. Marshall	42	Miner	He was loading a mine car and in turning slipped, wrenching his knee. Injuries to knee.
Sept. 20	Sheerness Coal Co., Ltd.	J. Anderson	44	Miner	He was undermining at the coal face when a piece of coal fell striking him on the wrist. Bruised wrist.
Sept. 30	P. J. McPeak	Alex. Johan	44	Miner	He was assisting the pusher in turning a car when he got crushed between car and a post. Fractured rib.
Oct. 3	Regal Collieries, Ltd.	M. Shipycha	30	Machine Scraper	He was scraping after the coal cutting machine when a piece of loose coal struck him on the hand. Fractured hand.
Oct. 23	Rosedale Coal & Clay Products Co., Ltd.	Pierce Rowly	25	Miner	He was shovelling coal into a mine car when a piece of rock fell from the roof striking him on the head and leg. Scalp wound and punctured leg.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Oct. 24	P. J. McPeak	Robert Hooten...	33	Miner	While mining, a piece of coal struck him in the eye. Injured eye.
Oct. 25	Rosedale Coal & Clay Products Co., Ltd.	W. J. Wood.....	32	Miner	He was clearing away some coal with a view to setting a prop when a piece of rock fell from the roof, striking him on the head and ankle.
Oct. 28	City of Lethbridge	Geo. Petruna.....	54	Loader	He was switching a loaded car from his room onto the entry and got his foot caught by the loaded car. Sprained foot.
Oct. 29	Humberstone Coal Co., Ltd.	Joseph Prisner...	27	Pusher	He was pushing cars into the shaft bottom and was in the act of uncoupling a car when other cars bumped into him crushing him against a prop. Crushed pelvis.
Nov. 7	Drumheller Land Co., Ltd.	G. W. Pierce.....	35	Miner	A piece of rock fell from the roof injuring him internally from which he died in five minutes.
Nov. 7	Tom Koski	Wm. Halbert..... Tom Koski.....	18 42	Miner Miner	Had been making cartridges of black powder in a shack near the mine, some loose powder had been spilled on the floor. Koski was instructing Halbert how to light shots with a piece of nicked fuse when the sparks ignited the loose powder on the floor, the flames spreading to the cartridges which ignited, blowing Halbert out of the shack. He received burns about the head, hands and lower parts of the body from which he died on the 16th November, 1919. Koski was burned about the head, face and hands.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	NAME	NAME	AGE	OCCUPATION	DETAILS
Nov. 14	North American Collieries, Ltd., Coalhurst.	N. Ursulok.....	27	Machine Scraper	He was helping the machine man in cutting a room neck when a piece of coal fell from the face, catching him. Internal injuries from which he died.
Nov. 18	City Collieries, Ltd.	H. Wakahuk.....	24	Miner	He had left his place while a shot was being fired and apparently had not got out of line of the shot, being struck by flying coal. Bruised head and back.
Nov. 18	Shamrock Coal Co., Ltd.	G. Malakor.....	48	Box Car Loader	He was loading coal in a box car when he slipped and hurt his side. Bruised shoulder and side.
Nov. 21	Canada West Coal Co., Ltd.	W. H. Matthews..	50	Loader	He was setting a prop at the face of his room when a piece of roof rock fell on him. Crushed Pelvis and broken ribs. Died from result on December 11th 1919.
Nov. 22	The Cardiff Collieries, Ltd.	John Thizeak.....	26	Miner	He was engaged digging coal off the rib when a piece of the top coal fell striking him on the feet and ankles. Cut on inside left ankle.
Nov. 22	The Cardiff Collieries, Ltd.	W. Bellygay.....	24	Driver	The horse he was driving became frightened and jerking the car so that the driver fell off, the car running over his foot. Contused right instep.
Nov. 22	City Collieries, Ltd.	M. Nybozyuski.....	31	Miner	He was boring a hole in the coal face when a piece of top coal fell striking him on the head. Slight cut on head.
Nov. 25	The Cardiff Collieries, Ltd.	D. O. Roberts.....	27	Machine-runner's Helper	He was carrying a blacksmith forge across the R. R. tracks when he slipped and fell, the forge falling on his foot. Strained and broken ligaments in foot.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Nov. 25	Sheerness Coal Co., Ltd.	J. C. Spencer	36	Miner	He was undermining coal when a piece struck him in the eye. Injured right eye.
Nov. 29	North American Collieries, Ltd., Monarch Mine	H. Clive	32	Miner	He was working at the coal face when a piece of rock fell striking him on the face and hand. Cut about eyebrows and thumb.
Dec. 3	The Canada West Coal Co., Ltd.	H. Price	24	Rock Dumper	He was driving a horse attached to rock car on rock dump and had unhitched the horse, the tailchain falling on the rail caused the car to dump, pinning him between the car and rail. Scalp wound and severe bruises on right side of chest.
Dec. 3	North American Collieries, Ltd.	Chas. Podmore	34	Locomotive Engineer, R. R.	At noon the Loco. crew had taken a car of lump coal from the tippie to the scale. At the same time the tippie loaders were changing a car at the slack chute. The brake on this car did not stop the car and it continued to move until it struck the Loco. Padmore was apparently on the foot board presumably doing some repairs to the feed water pipe when the car struck the Loco. and he must have been caught by the car. His left leg being badly lacerated between the hip and knee. He died from shock caused by the accident on December 4, 1919.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Dec. 3	Sheerness Coal Co., Ltd.	John C. Spencer..	36	Miner	He was helping to replace a car on the track when the other men lost their hold and the car dropped onto his hand. Cut and bruised fingers.
Dec. 3	Marcus Collieries, Ltd.	Gus Renes.....	34	Miner	He had fired a shot, using stumping powder, and after loading out the coal he was digging off the loose coal from the face when a piece of powder which had not exploded with the shot and was lying in the back end of the hole exploded and he was struck about the face and hands by the coal. Injuries to face, hands, arms and eyes.
Dec. 3	Shamrock Coal Co., Ltd.	Enricho Ruaben..	27	Miner	He was driving a horse, hauling rails when he slipped and fell with his left hand under him spraining the fingers.
Dec. 5	North American Collieries, Ltd., Pembina	William Robinson. Ivan House.....	28 47	Machine Runner Machine Helper	They were operating an electric coal cutting machine in a pillar when part of the coal that had been undercut fell. In endeavoring to jump back they caught their feet in the jack chain and falling were caught by the coal. Robinson's ankle being bruised and lacerated, House's left ankle sprained and bruised.

LIST OF ACCIDENTS IN DOMESTIC FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Dec. 5	Tofield Coal Co., Ltd.	Manfred Albrecht. Walter Albrecht.	21 23	Loader Loader	They were engaged in charging a shot hole with dynamite when it exploded, resulting in burns and lacerations all over body, dislocated left shoulder and eyes badly injured to Walter Albrecht, and burns and laceration of face and neck, fractured right jaw and injured right eye to Manfred Albrecht.
Dec. 8	Canadian Pacific Ry. Co.	William Cain	22	Driver	He was bringing out a trip of loaded cars and while passing through a door it closed and caught his leg. Left leg broken between knee and ankle.
Dec. 9	City Collieries, Ltd.	Wm. Jawada	36	Pusher	He was pushing a car and got his foot caught between car wheel and timber, Bruised foot.
Dec. 16	The Great West Coal Co., Ltd.	Geo. D. Mills	49	Machine man	He was endeavoring to take down some coal left in a machine cut in pillar workings when a large piece rolled on top of him crushing him. Left leg broken, injuries to skull and ribs broken. Fatal.
Dec. 24	The Ellis Coal Co., Ltd.	W. H. Willson	26	Miner	He had left a tin which contained carbide in the mine overnight and on opening it in the morning the gas which had generated ignited at the flame of his lamp. Severe burns about the face especially the eyes.
Dec. 24	City Collieries, Ltd.	P. Canezenk	28	Miner	He was working at the face of a room when a piece of coal fell from the roof striking him on the head. Top of head cut.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Dec. 26	Canadian Pacific Railway Co.	M. Jarokoski.....	24	Scraper	The machine runner had finished cutting the first bord in the entry and was moving the machine, Jarokoski helping him, when Jarokoski accidentally turned the air onto the machine which jumped back off the board onto his leg. Broken leg.
Dec. 26	Western Commercial Co., Ltd.	George Cassidy...	35	Miner	He was working at the face of a room loading a car when a piece of cap rock fell from the roof striking him on the arm. Both bones broken in right forearm.
Dec. 27	Newcastle Coal Co., Ltd.	John Stefnook....	23	Machine runner	He was knocking out a prop with an axe, when a piece of rock dropped from the roof onto his arm. Left arm broken.

LIST OF ACCIDENTS WHICH HAVE OCCURRED IN THE BITUMINOUS FIELD IN 1919.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Jan. 7	Oliphant Munson Collieries, Ltd.	Geo. Snow	51	Carpenter	He was hoisting a bent of the rock dump with a winch, when the jack which had been placed under the bent slipped, allowing the weight to fall suddenly on the winch and the crank handle slipped from his hand and struck him on the jaw, causing compound fracture of the jaw.
Jan. 13	Mountain Park Coal Co., Ltd.	Geo. Leshuitti	34	Miner	Top rock fell making gash in left inside thigh, 3 inches long and 1 inch deep.
Jan. 13	Mountain Park Coal Co., Ltd.	Joe Lucashik	51	Timber Packer	He was carrying timber when he slipped and fell, causing timber to fall on the right foot. Bruised foot.
Jan. 14	Mountain Park Coal Co., Ltd.	John Ruthouski	36	Miner	Was putting up timber when one slipped and crushed third finger of left hand.
Jan. 14	Mountain Park Coal Co., Ltd.	John Debin	23	Driver	Top coal fell on his foot causing bruises.
Jan. 18	Mountain Park Coal Co., Ltd.	Joe Valorzyn	36	Miner	He was sawing timber when saw jumped and cut left hand to the bone.
Jan. 20	Mountain Park Coal Co., Ltd.	Henry Turner	18	Driver	His lamp went out while cars were in motion turning curve, he was thrown sideways between car and rock causing broken arm and bruised hip.
Jan. 20	Hillcrest Collieries, Ltd.	Rene Steve	22	Roperider	He was cutting the rope off a trip at the knuckle at the top of No. 1 slope, when the car jumped the track throwing him off, the cars passing over his left foot, severely crushing the foot and ankle, necessitating amputation.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Jan. 22	Canmore Coal Co., Ltd.	Mike Wajda.....	25	Rope rider	He had gone into No. 15 crosscut to speak to the miners when a piece of coal slipped off the corner of the pillar striking him on the shoulders, fractured collar bone and upper ribs which punctured the lungs causing internal hemorrhage.
Jan. 24	International Coal & Coke Co., Ltd.	Henry Plasmon.....	18	Dinkey Driver	He was standing at the switch on the parting in No. 2 seam "B" level, intending to throw the same when the first car got off the track and caught him, killing him instantly.
Jan. 25	Hillcrest Collieries, Ltd.	Kovac August.....	48	Miner	He was working in a pillar when a fall of coal took place, striking him on the leg. Fractured leg.
Jan. 25	Mountain Park Coal Co., Ltd.	Matt Figuia	29	Miner	He was trying to uncouple a car from a trip when mules started, causing him to get crushed between car and timbers.
Jan. 27	West Canadian Collieries, Ltd., (Greenhill)	Robert Barnhill	53	Laborer	He was driving a horse pulling an empty car down alongside the incline when the car toppled over on him, breaking his leg.
Feb. 4	McGillivray Creek Coal & Coke Co., Ltd.	Pete Lovchuk.....	27	Miner	Deceased was undermining top coal when he was struck by a large piece which fell and broke his neck. Fatal.
Feb. 4	Mountain Park Coal Co., Ltd.	L. Aldridge.....	18	Driver	He was riding on bumper taking out cars, timber truck on track in way, he jumped off but his foot was caught under truck.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Feb. 12	Brazeau Collieries, Ltd.	Josef Ebb.	49	Miner	He was standing on a bench of coal at the face of 72 Rt level making a hole in the coal next the roof for the purpose of putting a fore pole from last set of timber, when about one half ton of coal and two small pieces of cap rock fell from a slip in the coal face striking him on the face and lower part of the body causing injuries which resulted fatally.
Feb. 14	Oliphant Munson Collieries, Ltd.	J. Clark	28	Miner	He was working in the stripping pit loading coal with a wheelbarrow, the shot-lighter was firing a shot on the stripping above the pit and a piece of frozen dirt rolled down into the pit striking Clark on the hip. Bruised right hip.
Feb. 18	Mountain Park Coal Co., Ltd.	M. Handerek.	35	Miner	He was placing a timber when it fell, striking him on the hip. Bruised right hip.
Feb. 19	Mountain Park Coal Co., Ltd.	Bert Watson.	15	Tipple laborer	The mule he was driving turned, catching his left ankle in the tail chain. Bruised ankle.
Feb. 19	Mountain Park Coal Co., Ltd.	J. Waite.	37	Miner	He was walking down the slope and slipped falling on to his powder can. Cracked rib.
Feb. 21	Mountain Park Coal Co., Ltd.	P. Handerek	37	Miner	Piece of coal fell off the side of place on to his leg. Bruised right leg.
Feb. 23	Mountain Park Coal Co., Ltd.	J. Rotan	46	Fireman	He was assisting engineer repair the hoist and a pin fell on his foot. Bruised right foot.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Feb. 26	Mountain Park Coal Co., Ltd.	F. Bisciro.....	33	Miner	Top coal caved, striking him on the head and leg. Cuts on head and bruised left knee.
March 3	Canmore Coal Co., Ltd.	Dym Ewashuk....	23	Rope rider	He was moving the switch points with his hand when the trip of cars ran over his fingers which necessitated amputation of one finger.
March 3	Mountain Park Coal Co., Ltd.	J. Massotti.....	39	Miner	Slipped on the rail causing him to fall on the left elbow. Bruised elbow.
March 7	Brazeau Collieries, Ltd.	A. Wolski.....	20	Driver	He was hauling three loaded cars on to the jig top when the horse turned catching Wolski's leg between the tail chain and the corner of one of the cars, breaking the leg above the knee.
March 13	Brazeau Collieries, Ltd.	M. Brattis.....	40	Car pusher	He had pushed three empty cars and coupled them to the rope at the foot of the incline and gave the signal but neglected to set the switch resulting in the cars coming on to the landing, crushing him. Right shoulder fractured and hip bruised.
March 18	Mountain Park Coal Co., Ltd.	Edward Purcell..	62	Lumberman	He was repairing timber when a cave took place burying him. Fatal.
March 18	West Canadian Collieries, Ltd.	Frank Cosco.....	26	Chute loader	He was lifting a car on to the track and got his finger jammed between car and a timber. Crushed finger.
March 18	Cadomin Coal Co., Ltd.	Ben Chase.....	48	Miner	He was engaged in setting a post in pillar workings when a piece of rock broke away striking the post and throwing it on to his left leg. Small bone above the ankle broken.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
March 24	Cadomin Coal Co., Ltd.	S. Kureen	49	Box car loader	He was lowering a box car and allowed it to travel too fast so that when it struck the other cars he was thrown from the top of the cars to the ground. Deep cuts on face and bruised shoulder.
March 27	McGillivray Creek Coal & Coke Co., Ltd.	Dominico Guilio	38	Miner	He was standing on a plank taking down top coal when a piece of coal struck the plank, breaking it and throwing him to the floor when a piece of coal fell on him causing fractured shoulder blade and collar bone.
March 28	Brazeau Collieries, Ltd.	F. Hoffman	19	Mine driver	Was riding on back of gin horse, horse started to gallop, Hoffman fell off, his foot caught in the harness and he was dragged 300 yards, causing injuries to scrotum and testicles.
April 2	Brazeau Collieries, Ltd.	W. Wisniewsky	30	Miner	He was wedging a set of timber when some rock came down on collar, knocking the collar off the legs which fell on him, causing fracture of the 12th dorsal vertebrae. Died from the effects of accident November 13th, 1919.
April 3	Hillcrest Collieries, Ltd.	Mytro Ivanichuk	27	Driver	His horse ran away, causing his leg to be caught between post and car, which resulted in compound comminuted fracture.
April 7	McGillivray Creek Coal & Coke Co., Ltd.	F. Johnson	26	Driver	He was at the slope bottom and was struck by a loaded car which was being hoisted, causing compound fracture of the right leg.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
April 8	Hillcrest Collieries, Ltd.	Max Brocham.....	30	Miner	Bench slid away, carrying him against a prop, weight of coal twisted his body, fractured and lacerated his leg.
April 23	North American Collieries, Ltd.	Mike Outrick.....	47	Banksman	He was taking sprags out of the wheels of empty cars and in stepping back tripped and fell in front of moving cars. Cut head and bruised back.
April 30	Blue Diamond Coal Co., Ltd.	James Logan.....	27	Miner	He was boring a hole with a breast auger at the face of the angle when a piece of coal fell striking him on the knee. Dislocated knee with probable fracture.
May 2	Hillcrest Collieries, Ltd.	Geo. Bambrough.....	44	Miner	He was working in a pillar when a fall of coal and rock took place burying him, resulting in his left arm being broken between the elbow and shoulder and his head being cut.
May 21	Mountain Park Coal Co., Ltd.	Thos. Eccleston...	20	Bratticeman	A trip of empty cars with a pair of rails on behind was being lowered down the slope, the rails got fast throwing the cars into the rib, crushing this man against the cog, three ribs broken and internal injuries.
May 22	Cadomin Coal Co., Ltd.	A. Chompezn.....	25	Timber Packer	He was packing timber up 71 raise to counter entry and when up 30 ft. slipped and fell fracturing his skull. Fatal.
June 19	Saunders Creek Domestic & Steam Coal Co., Ltd.	A. Moratt.....	24	Miner	He was breaking down coal from the face of dip entry when a large piece of rock fell out from a pot hole in the roof striking him. Fatal.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Aug. 15	Bellevue Collieries, Ltd.	Fred Marcoli.....	26	Boiler Fireman	He was shovelling coal out of a car in the boiler room when he slipped, falling out of the car striking his back on a timber. Bruised back.
Sept. 4	Canmore Coal Co., Ltd.	Andy Gustasen....	32	Miner's Helper	He was in the act of cutting a prop when a niggerhead rock fell from the roof striking him on the head and upper part of body. Fatal.
Sept. 13	West Canadian Collieries, Ltd.	T. Hood.....	28	Locomotive Engineer	He was tightening a nut on gauge glass when glass burst. Cut about face and right eye ball.
Sept. 19	North American Collieries, Ltd., Lovett	Napoleon White..	25	Driver	He was taking a trip of cars down a slant riding on the first car which jumped the track crushing him between the rib side and the car. Bruised hip and knee.
Oct. 5	Canmore Coal Co., Ltd.	Thomas Ramsay..	25	Miner	While in the act of putting center post under bridge stick it broke causing a cave, burying him. Fractured ribs, with injuries to heart and lungs. Fatal.
Oct. 5	Canmore Coal Co., Ltd.	Patrick King.....	50	Miner	Fractured skull. Fatal.
Oct. 6	Hillcrest Collieries, Ltd.	Thomas Hamilton.	19	Rope rider	Empty cars turned over and pinned him to the rib side. Bad laceration right leg.
Oct. 7	Cadomin Coal Co., Ltd.	G. Casterlerini...	50	Miner	He was putting up a set of timber when a piece of top coal fell striking him on the back. Back and side sprained and bruised.
Oct. 15	Hillcrest Collieries, Ltd.	Niek Howryluk...	21	Bucker	Cars jumped track squeezing him against a post. Bruised hips.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Nov. 4	West Canadian Collieries, Ltd.	Frank Pokorney..	39	Miner	A shot was being fired in his place and he had not got far enough away and was struck by a piece of flying coal. Cut and bruised about the face.
Nov. 8	Cannore Coal Co., Ltd.	John S. Wright...	41	Overman	He was inspecting the hoist at top of No. 7 jig when his clothing became caught in the gears which dragged his arm into the gearing. Left arm cut off 3 inches below elbow, piece cut off left ear, bruised and cut on left shoulder and side. Died from the effects of accident December 2nd, 1919.
Nov. 10	McGillivray Creek Coal & Coke Co., Ltd.	T. Hnatnuk.....	29	Driver	He was driving a new horse which became frightened and bolted throwing the empty car off the track, catching him between the car and a timber. Fracture of right arm between shoulder and elbow.
Nov. 25	North American Collieries, Ltd., Lovett	George Garbich...	48	Box car Trimmer	He was helping the box car loader man turn the wheel which moves the boom when he slipped and his arm got caught between the gears. Right arm taken off between hand and elbow.
Dec. 6	Brazeau Collieries, Ltd.	John Treheame...	53	Miner	He was dropping a car from the face of the room and was standing on the side the empty car was travelling on when it struck him. Fracture of both bones in leg between ankle and knee.

LIST OF ACCIDENTS IN BITUMINOUS FIELD—Continued.

DATE	MINE	NAME	AGE	OCCUPATION	DETAILS
Dec. 8	Cadomin Coal Co., Ltd.	N. Paschak.....	32	Driver	He was bringing out a trip of cars, his light went out and the horse he was driving stumbled throwing the first car off the track, crushing the driver under the car. Severely crushed leg and thigh.
Dec. 24	McGillivray Creek Coal & Ccke Co., Ltd.	J. B. Quenax.....	45	Miner	He was working in a pillar when a piece of top coal fell striking him on the shoulder. Broken collar bone right side.
Dec. 24	Brazeau Collieries, Ltd.	R. J. Hill.....	20	Driver	He was driving a horse hauling a loaded car and was walking in front of the car when he slipped on the rail, the car struck him, knocking him to the low side of the entry and jammed him between the car and a post. Severe contusion of the hips and thorax with thoracic hemorrhage.
Dec. 27	McGillivray Creek Coal & Coke Co., Ltd.	Angus Campbell..	50	Miner	He was at the slope bottom braking some loaded cars and got crushed between them and some cars standing there. Broken collar bone.

FATAL ACCIDENTS.

The fatal accident which occurred to Mike Wajda on January 22 in the mine operated by the Canmore Coal Co., Ltd., near Canmore, was caused by a fall of coal. He had gone into No. 15 crosscut to speak to the miners working there, when a piece of coal slipped off the corner of the pillar striking him on the shoulders, causing a fractured collar-bone and upper ribs. The ribs punctured the lungs causing internal hemorrhage from which he died.

The fatal accident which occurred to Henry Plasman on January 24 in the mine operated by the International Coal & Coke Co., Ltd., near Colman, was caused through his being crushed by loaded mine cars. He was standing at the switch on the siding in No 2 Seam "B" level, intending to throw same for a trip of loaded cars which the locomotive was pushing, when the first car got off the track, jamming him between the side of the entry and the car. Killing him instantly.

The fatal accident which occurred to Pete Levechuk on February 4 in the mine operated by the McGillivray Creek Coal & Coke Co., Ltd., near Coleman, was caused through a fall of coal. He was undermining the top coal in a crosscut when a large piece fell striking him on the head and shoulders breaking his neck.

The fatal accident which occurred to Joseph Ebb on February 12 in the mine operated by the Brazeau Collieries, Ltd., near Nordegg, was caused by a fall of coal and rock. He was cutting a hitch for a fore pole when some coal and rock fell, striking him on the face and lower part of the body, causing injuries from which he died shortly after the accident.

The fatal accident which occurred to R. Barber on February 20 in the mine operated by the Ajax Coal and Mining Co., Ltd. was caused by a fall of coal. He was working at the face of an entry when a large piece of top coal fell striking him, cutting his face and breaking his left leg. Death resulted on the 21st February from shock caused by the accident.

The fatal accident which occurred to Edward Purcell on March 18 in the mine operated by the Mountain Park Coal Co., Ltd. at Mountain Park was caused by a fall of rock. He was replacing some broken timber on the main entry when a heavy cave took place which buried him, the body was not recovered until 4 days later.

The fatal accident which occurred to W. Wismewsky on April 2, in the mine operated by the Brazeau Collieries, Ltd., Nordegg, was caused by a fall of rock. He had placed a sett in position near the face of the entry and was engaged wedging it when some rock fell from the roof displacing the timber which fell on him, striking him on the back fracturing the 12th dorsal vertebrae, from the effects of which he died on Nov. 13, 1919.

The fatal accident which occurred to A. Chompezn on May 22, in the mine operated by the Cadomin Coal Co., Ltd., Cadomin, was caused through his falling down a raise. He was packing timber up 71 raise from the main to the counter entry and when half way up slipped and fell back striking his head, fracturing his skull from the effects of which he died about 10 hours later.

The fatal accident which occurred to A. Moratt on June 19, in the mine operated by the Saunders Creek Domestic & Steam Coal Co., Ltd., Saunders, was caused by a fall of rock. He was breaking down coal at

the face of the dip entry when a large piece of rock fell from the roof striking him on the head and back, causing instant death.

The fatal accident which occurred to Maurice Jephson on August 18 in the mine operated by the Rosedale Coal & Clay Products Co., Ltd., Rosedale, was caused by a fall of coal and clay from the roof. He had been drilling a hole in the bottom coal and was sharpening the drill when a piece of top coal and some clay fell on him fracturing his skull and left leg, from the effects of which he died shortly after.

The fatal accident which occurred to J. W. Blockley on August 21 in the mine operated by the Atlas Coal Co., Ltd., Drumheller, was caused by his being struck by loaded cars at the foot of the slope. He was working on the siding at the foot of the slope when a trip of loaded cars, that was being hoisted up the slope, broke away and ran back down the slope catching him, causing a compound fracture of the leg, from the effects of which he died on August 28, 1919.

The fatal accident which occurred to Andy Gustasen on September 4 in the mine operated by the Canmore Coal Co., Ltd., near Canmore, was caused by a fall of rock. He was cutting a prop when a piece of nigger-head rock fell from the roof striking him on the head and upper part of the body killing him instantly.

The fatal accident which occurred to Thomas Ramsay and Patrick King on October 5 in the mine operated by the Canmore Coal Co., Ltd., near Canmore, was caused by a cave while timbering. They were engaged putting in a center prop under a bridgestick when a cave took place which buried them. Killing them both instantaneously.

The fatal accident which occurred to G. W. Pierce on November 7 in the mine operated by the Drumheller Land Co., Ltd., Drumheller, was caused by a fall of rock. He was working at the face of a pillar taking down coal when a large piece of rock fell from the roof injuring him internally, death being instantaneous.

The fatal accident which occurred to William Halbert on November 7 at the mine operated by Tom Koski near Trochu, was caused by the ignition of Black Powder through a fire. He had been making up cartridges of Black Powder along with two other men in a shack near the mine and had spilled some powder on the floor. One of the men was instructing him how to light shots by using a piece of nicked fuse when the sparks ignited the loose powder on the floor and the flames spread to the cartridges which ignited, blowing Halbert out of the shack. He received burns about the head, hands and lower part of the body, from the effects of which he died on November 16, 1919.

The fatal accident which occurred to John S. Wright on November 8 at the mine operated by the Canmore Coal Co., Ltd., near Canmore, was caused through his being caught in the hoisting machinery. He had gone into the hoist house on the surface at the top of No. 7 Jig, the bearing between the gears was giving trouble and he attempted to pour oil on same while the hoist was in motion, his clothing caught in the gears which dragged his arm into the gearing cutting off his left arm and a piece of his left ear also badly lacerating his side and shoulder, from the effects of which he died on December 2, 1919.

The fatal accident which occurred to N. Ursulok on November 14 in the mine operated by the North American Collieries, Ltd., near Coal-

hurst, was caused by a fall of coal. He was helping the machine man in cutting a room neck off the entry when a large piece of coal fell from the face on him causing internal injuries from which he died an hour later.

The fatal accident which occurred to W. H. Matthews on November 21 in the mine operated by the Canada West Coal Co., Ltd., near Taber, was caused by a fall of rock. He was setting a prop at the face of a room when a large piece of rock from the roof fell on him breaking some ribs and the pelvic bone, from the effects of which he died on December 11, 1919.

The fatal accident which occurred to Charles Podmore on December 3 at the mine operated by the North American Collieries, Ltd., Evansburg, was caused through his being struck by a railway box car. He was working on the front end of the Locomotive near the Railroad track scale when a box car loaded with slack caught him between the car and locomotive causing severe laceration of his left leg. He died from the effect of shock on December 4, 1919.

The fatal accident which occurred to Geo. D. Mills on December 16 in the mine operated by the Great West Coal Co., Ltd., near Clover Bar, was caused by a fall of coal. He was endeavoring to take down some coal left in a machine cut in a pillar when a large piece of coal rolled over on top of him crushing him internally and breaking his left leg, from the effects of which he died within a few minutes.

TABLE SHOWING ACCIDENTS AS THEY OCCURRED BY MONTHS DURING THE YEAR 1919.

Months	Above Ground				Below Ground				Total above and below ground
	Fatal	Seri-ous	Slight	Total	Fatal	Seri-ous	Slight	Total	
January . . . . .	..	2	..	2	2	4	6	12	14
February . . . . .	..	..	4	4	3	3	8	14	18
March . . . . .	..	1	3	4	1	7	1	9	13
April . . . . .	..	1	..	1	1	5	1	7	8
May . . . . .	..	..	..	..	1	2	1	4	4
June . . . . .	..	..	..	..	1	1	..	2	2
July . . . . .	..	1	..	1	..	..	1	1	2
August . . . . .	..	..	1	1	2	3	1	6	7
September . . . . .	..	1	..	1	1	2	8	11	12
October . . . . .	..	..	..	..	2	3	6	11	11
November	2	3	1	6	3	3	6	12	18
December	1	2	1	4	1	12	5	18	22
Total	3	11	10	24	18	45	44	107	131

Tabulated list of Accidents occurring in the Province above and below ground during the year 1919:

Cause	Fatal		Serious		Slight		Total	
	A.	B.	A.	B.	A.	B.	A.	B.
Haulage . . . . .	..	2	3	23	2	13	5	38
Falls of Rock . . . . .	..	8	..	8	..	5	..	21
Falls of Coal . . . . .	..	6	..	7	..	10	..	23
Coal Cutting Machines . . . . .	..	1	..	4	..	1	..	6
Caught in Machinery	1	..	1	..	..	..	2	..
Railroad Cars	1	..	1	..	2	..	4	..
Shot Firing . . . . .	..	..	2	1	1	2	3	3
Ignition of Black Powder	1	..	1	..	..	..	2	..
Tipple Accident . . . . .	..	..	1	..	2	..	3	..
Falling down Chute . . . . .	..	1	..	..	..	..	..	1
Fall of timber while placing same . . . . .	..	..	..	..	..	2	..	2
Shaft Accident . . . . .	..	..	..	..	..	1	..	1
Flying coal off pick . . . . .	..	..	..	..	..	3	..	3
Miscellaneous . . . . .	..	..	2	2	3	7	5	9
Totals	3	18	11	45	10	44	24	107

Tabulated List of Accidents occurring in the Province above and below ground during the year 1919, classified according to the Districts in which they occurred.

Name of District	Fatal		Serious		Slight		Total		Total above and below ground
	Above	Below	Above	Below	Above	Below	Above	Below	
Crow's Nest Pass	2	2	11	2	2	4	15	19
Pincher Creek	1	.	4	.	4	.	9	9
Lethbridge
Magrath
Milk River	1	.	3	1	.	1	4	5
Taber	1	.	.	.	.	.
Bow Island	1	1	1	.	.	1	2	3
Medicine Hat
Aldersyde
High River	1	4	.	1	.	.	1	5	6
Canmore
Banff	3	.	4	1	6	1	13	14
Drumheller
Big Valley	3	1	5	.	.	1	8	9
Brazeau
Brooks
Hanna	4	.	4	4
Lacombe	1	.	1	1	.	.	2	1	3
Trochu	2	.	.	.	2	2
Three Hills
Carbon
Battle River
Camrose	2	.	.	.	2	.	2
Tofield	1	.	3	.	.	.	4	4
Clover Bar	2	1	11	1	13	14
Edmonton	1	1	1	2	1	3	1
Nanaimo
Cardiff	1	.	.	2	.	1	1	3	4
Wabamun
Pembina	2	.	1	1	3	4
Jasper Park	1	.	1	4	1	1
Yellowhead Pass	3	.	1	1	.	.	5
Mountain Park	2	.	4	3	13	3	19	22
Peace River
Total	3	18	11	45	10	44	24	107	131

The following tables give the classification of accidents according to the Coal Field in which they occurred:

DOMESTIC.

CAUSE	ABOVE GROUND			BELOW GROUND			Total
	Fatal	Serious	Slight	Fatal	Serious	Slight	
Rope haulage, (endless) failed to release grip	1	1
Rope haulage, (endless) failed to release grip, caught by derailed cars	1	..	1
Rope haulage, struck by runaway loaded cars	1	1	..	2
Rope haulage, jumped off trip of empty cars	1	1
Rope haulage, struck by trip of derailed cars	..	1	..	..	..	..	1
Horse haulage, jammed between loaded car and mine door	2	..	2
Horse haulage, caught between empty car and timber	1	..	1
Horse haulage, caught between loaded car and timber	1	..	1
Horse Haulage, knee crushed between tail chain and timber	1	1
Horse haulage, empty car ran over foot	1	1
Horse haulage, caught between rock car and rail	1	..	..	..	1
Hand haulage, crushed between loaded cars	1	..	1
Hand haulage, crushed between car and timber	2	1	3
Hand haulage, foot caught by loaded car	1	1
Hand haulage, strained back pushing cars	2	2
Hand haulage, replacing car on track crushed fingers	1	1
Fall of rock at face of room	1	..	..	1
Fall of rock while cleaning cave	3	4	8
Fall of rock in pillar workings	1	..	1
Fall of rock at face of entry	1	..	..	1
Fall of coal in pillar workings	2	..	2
Fall of coal at face of room	1	1	..	2
Fall of coal at face of entry	1	..	6	7
Coal cutting machinery (compressed air)	1	..	..	1
Coal cutting machinery (electricity)	1	3	..	4
Shot firing, struck by flying coal from shot	1	..	2
Shot firing, using too short a piece of fuse	..	2	..	..	..	1	1
	2

DOMESTIC (Continued).

CAUSE	ABOVE GROUND			BELOW GROUND			Total
	Fatal	Serious	Slight	Fatal	Serious	Slight	
Explosion of powder remaining in hole from shot .....	..	..	..	..	1	..	1
Ignition of black powder while making cartridges in shack	1	1	..	..	..	..	2
Shaft accident struck by piece of coal falling down shaft .....	..	..	..	..	..	1	1
Struck by piece of coal from pick .....	..	..	..	..	..	3	3
Tipple accident, bar slipped striking him on head .....	..	..	1	..	..	..	1
R. R., fell off top of box car .....	..	..	1	..	..	..	1
R. R., caught between locomotive and cars	1	..	..	..	..	..	1
Miscellaneous .....	..	1	1	..	2	3	7
	2	5	4	7	23	28	69

The following tables give the classification of accidents according to the Coal Field in which they occurred:

BITUMINOUS.

CAUSE	ABOVE GROUND			BELOW GROUND			Total
	Fatal	Serious	Slight	Fatal	Serious	Slight	
Rope haulage, foot crushed by loaded cars	1	..	1
Rope haulage, crushed between empty cars and side of slope	2	..	2
Rope haulage, struck by loaded car	1	..	1
Rope haulage, cars ran over his hand	1	..	1
Rope haulage, (self acting incline) crushed by loaded cars	2	..	2
Horse haulage, caught between cars and timber	4	3	7
Horse haulage, crushed by loaded cars	1	..	1
Horse haulage, leg caught between empty car and tail chain	1	..	1	..	2
Horse haulage, foot crushed by empty car	1	1
Horse haulage, empty car rolled over	..	1	..	..	..	..	1
Horse haulage, fell off horse and dragged along ground	..	1	..	..	..	..	1
Mech. haulage, (compressed air locomotive) crushed by loaded cars	1	..	..	1
Mech. haulage, (electric storage battery locomotive) crushed between loaded cars	1	..	1
Fall of rock while timbering
Fall of rock in pillar workings	3	..	..	3
Fall of rock at face of entry while placing timber	1	1	..	2
Fall of rock at face of entry	1	1	..	2
Fall of coal in pillar workings	1	..	1	2
Fall of coal at face of room	1	2	..	4
Fall of coal at face of room	4	1	5
Fall of coal in cross cut	1	..	..	1
Fall of coal at face of entry while setting timber	1	..	..	1
Fall of coal at face of slope	2	2
Shot firing, struck by flying coal	1	..	..	1	2
Falling down chute	1	..	..	1
Fall of timber while placing same	2	2
Tipple accident, struck by empty cars	..	1	..	..	..	..	1
Tipple accident, fingers jammed between car and timber	1	..	..	..	1

BITUMINOUS (Continued).

CAUSE	ABOVE GROUND			BELOW GROUND			Total
	Fatal	Serious	Slight	Fatal	Serious	Slight	
Caught in machinery	1	1	..	..	..	..	2
R. R., bursting of gauge glass on locomotive .....	..	1	..	..	..	..	1
R. R., fell off top of box car .....	..	..	1	..	..	..	1
Miscellaneous .....	..	1	2	..	..	4	7
	1	6	6	11	22	16	62

THE MINES BRANCH

Table showing Accidents during 1919 classified according to the mines in the DOMESTIC Field in which they occurred:

Name of Operator	District	ABOVE GROUND				BELOW GROUND				Total above and below
		Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Can. Pac. Ry. Dept. Nat. Res. No. 6 mine	Lethbridge	..	..	..	..	..	2	1	3	3
The Trust & Guarantee Co., Ltd.	Lethbridge	..	..	..	..	1	1	..	1	1
North Amer. Coll. Ltd., Coalhurst	Lethbridge	..	..	..	..	..	..	1	1	3
City of Lethbridge	Lethbridge	..	..	..	..	..	..	1	1	1
Andrew Molloy	Lethbridge	..	..	..	..	..	..	1	1	1
The Canada West Coal Co., Ltd.	Taber	..	..	1	1	1	..	..	1	2
Regal Collieries, Ltd.	Taber	..	..	..	..	..	3	..	3	3
Redcliff Brick & Coal Co., Ltd.	Medicine Hat	..	1	..	1	..	..	..	..	1
Redcliff Pressed Brick Co., Ltd.	Medicine Hat	..	..	..	..	..	1	..	1	1
Ajax Coal & Min. Co., Ltd.	Medicine Hat	..	..	..	..	1	..	..	1	1
Newcastle Coal Co., Ltd.	Drumheller	..	..	..	..	..	1	..	1	1
Rosedale Coal & Clay Products Co., Ltd.	Drumheller	..	..	..	..	1	1	2	4	4
Rose-Deer Coal Mining Co., Ltd.	Drumheller	..	..	..	..	..	..	1	1	1
Drumheller Land Co., Ltd.	Drumheller	..	..	..	..	1	..	..	1	1
North Amer. Coll. Ltd., (Monarch Mine)	Drumheller	..	..	..	..	..	..	1	1	1
Western Comm. Co., Ltd.	Drumheller	..	..	..	..	..	1	..	1	1
Atlas Coal Co., Ltd.	Drumheller	..	..	..	..	1	..	..	1	1
Excelsior Colls. Ltd.	Drumheller	..	..	..	..	..	1	..	1	2
Shamrock Coal Co., Ltd.	Drumheller	..	..	1	1	..	..	1	1	2
Sheerness Coal Co., Ltd.	Hanna	..	..	..	..	..	..	3	3	3
George W. Halliday	Hanna	..	..	..	..	..	..	1	1	1
Tom Koski	Trochu	1	1	..	2	..	..	..	..	2
Wm. R. Walsh	Trochu	..	..	..	..	..	1	..	1	1
The Ellis Coal Co., Ltd.	Three Hills	..	..	..	..	..	2	..	2	2
Tofield Coal Co., Ltd.	Tofield	..	2	..	2	..	..	..	..	2
Humberstone Coal Co., Ltd.	Clover Bar	..	..	..	..	..	1	..	1	1
Keith & Fulton	Clover Bar	..	..	..	..	..	1	..	1	1
The Great West Coal Co., Ltd.	Clover Bar	..	..	..	..	1	..	..	1	1

Table showing Accidents during 1919 classified according to the mines in the DOMESTIC Field in which they occurred:

Name of Operator	District	ABOVE GROUND				BELOW GROUND				Total above and below
		Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Marcus Collieries, Ltd.	Clover Bar	..	..	..	..	..	1	..	1	1
P. J. McPeak	Edmonton	..	..	..	..	..	2	3	5	5
City Collieries	Edmonton	..	..	1	1	..	..	4	4	5
Edmonton Collieries, Ltd.	Edmonton	..	..	..	..	..	..	4	4	4
Namao Collieries, Ltd.	Namao	..	..	1	1	..	..	..	..	1
Cardiff Collieries, Ltd.	Cardiff	..	1	..	1	..	1	2	3	4
North Amer. Colls., Ltd.	Pembina	1	..	..	1	..	2	1	3	4
		2	5	4	11	7	23	28	58	69

Table showing Accidents during 1919 classified according to the Mines in the BITUMINOUS field in which they occurred:

Name of Operator	District	ABOVE GROUND				BELOW GROUND				Total above and below
		Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Hillcrest Collieries, Ltd.	C. N. P.	..	..	..	..	..	6	1	7	7
Inter. Coal & Coke Co., Ltd.	C. N. P.	..	..	..	..	1	..	..	1	1
Bellevue Collieries, Ltd.	C. N. P.	..	..	1	1	..	..	..	..	1
McGillivray Creek Coal & Coke Co., Ltd.	C. N. P.	..	..	..	..	1	5	..	6	6
West Canadian Collieries, Ltd. (Greenhill)	C. N. P.	..	2	1	3	..	..	1	1	4
Canmore Coal Co., Ltd.	Canmore	1	..	..	1	4	1	..	5	6
Brazeau Collieries, Ltd.	Brazeau	..	1	..	1	2	5	..	7	8
Saunders Creek Dom. & Steam Coal Co., Ltd.	Brazeau	..	..	..	..	1	..	..	1	1
Blue Diamond Coal Co., Ltd.	Jasper Park	..	..	..	..	..	1	..	1	1
North American Colls., Ltd. (Lovett)	Yellowhead Pass	..	2	..	2	..	..	1	1	3
Olipphant Munson Colls., Ltd. (Mile 40)	Yellowhead Pass	..	1	..	1	..	..	..	..	1
Olipphant Munson Colls., Ltd. (Mile 47)	Yellowhead Pass	..	..	1	1	..	..	..	..	1
Mountain Park Coal Co., Ltd.	Mountain Park	..	..	2	2	1	2	12	15	17
Cadomin Coal Co., Ltd.	Mountain Park	..	..	1	1	1	2	1	4	5
		1	6	6	13	11	22	16	49	62

No accidents were reported as having occurred in the Anthracite field during the year 1919.

LIST OF PROSECUTIONS UNDER THE MINES ACT DURING 1919.

Mine in which Contravention was Committed	Description of Defendant	Offence Charged	Result of Proceedings	Penalty	Costs
Mrs. G. G. Hannah	Operator	Failed to comply with Section 42 of The Mines Act	Convicted	Fined \$1.00	\$4.25
George Slockett	Operator	Failed to comply with Section 42 of The Mines Act	Convicted	Fined \$1.00	\$4.25
Mountain Park Coal Co., Ltd.	Coal Bucker	Having pipe for smoking tobacco in his possession. (Sub-section 3, Section 64)	Convicted	No fine or penalty imposed	\$4.75
Mrs. E. M. Turney	Overman	Failure to forward the sum of money equal to 5c per ton on the coal removed from the mine during the months of Sept., Oct. and Nov. 1918. (Sec. 6, Mine Owners' Tax Act)	Convicted		
E. E. Cumming	Mine Owner	Not sending in returns for his mine. (Sec. 42 of The Mines Act)	Convicted	Fined \$5.00	\$1.00
Brazeau Collieries, Ltd.	Coal Miner	That he committed an act likely to cause danger to the mine or any person, by throwing his safety lamp into the rib side of his working place. (Sec. 97 of the Mines Act)	Convicted	Fined \$5.00	\$1.00
John Finstead & Co.	Owner	That he did mine coal during months of October, November and December, 1918, without notifying the Minister of Public Works, and District Inspector of Mines. (Section 46 of The Mines Act.)	Convicted	\$50.00 or three months	\$5.75
McGillivray Creek Coal & Coke Co., Ltd.	Miner	That he did go into the mine in an intoxicated condition. (Section 100 of The Mines Act.)	Convicted	Fined \$5.00	Nothing
			Convicted	Fined \$10.00	\$10.25

LIST OF PROSECUTIONS UNDER THE MINES ACT DURING 1919-Continued.

Mine in which Contravention was Committed	Description of Defendant	Offence Charged	Result of Proceedings	Penalty	Costs
Arthur Williamson	Operator and Overman	That he did fail to comply with Section 42 of The Mines Act, for the month of January, 1919	Convicted	Fined \$2.00	\$3.00
Theo Kurp	Mine Operator	That he did fail to comply with Section 42 of The Mines Act, for the month of January, 1919	Convicted	Fined \$3.00	\$1.25
Ole Thompson	Mine Operator	That he did fail to comply with Section 42 of The Mines Act, for the month of January, 1919	Convicted	Fined \$3.00	\$6.00
D. Tredway Coal Co.	Mine Operators	That they did fail to comply with Section 42 of The Mines Act, for the month of January, 1919	Convicted	Fined \$3.00	
Hillcrest Collieries Ltd.	Miner	That he did fail to comply with Section 42 of The Mines Act, for the month of January, 1919	Case withdrawn producing proof that the report had been sent to the Minister		
John K. Hamilton	Operator	That he did have in his possession a lamp of a pattern not approved of. (Reg. 5, under Sec. 138 of The Act. 1913.)	Convicted	\$20.00 or one month	\$10.50
William H. McIntyre	Operator	That he did fail to comply with Section 42 of The Mines Act, for the month of March	Convicted	Fined \$1.00	\$2.25
Charles Bostock	Operator	That he did fail to comply with Section 42 of The Mines Act, for the month of March	Convicted	Fined \$1.00	\$1.60
			Convicted	Fined \$1.00	\$1.50

LIST OF PROSECUTIONS UNDER THE MINES ACT DURING 1919—Continued.

Mine in which Contravention was Committed	Description of Defendant	Offence Charged	Result of Proceedings	Penalty	Costs
The Alberta & Crow's Nest Coal Co., Ltd.	Gen. Manager ...	That he did operate a mine without having a Certificated person in charge. (Sub-Sec. 2 of Sec. 29 of The Mines Act, 1913, and Amendments.)	Convicted	Fined \$5.00	\$5.30
West Canadian Collieries, Ltd..	Examiner and Shotlighter	That he did fail to couple the cable to a shot in the mine. Sub-Sec. 7, Sec. 65 of The Mines Act, 1913, and Amendments thereto	Convicted	Fined \$5.00	\$5.15
West Canadian Collieries, Ltd..	Timber Packer ...	That he did have matches in his possession in the mine. Sub-Sec. 3, Sec. 64 of The Mines Act, 1913, and Amendments thereto	Convicted	Fined \$10.00	\$5.10
West Canadian Collieries, Ltd.	Miner	That he did have matches in his possession in the mine. Sub-Sec. 3, Sec. 64 of The Mines Act, 1913, and Amendments thereto	Convicted	Fined \$10.00	\$5.15
Alberta & Crow's Nest Coal Co., Ltd.	Gen. Manager ...	That he did fail to comply with Section 42 of The Mines Act, for the month of October	Convicted	Fined \$1.00	\$4.50
Alberta & Crow's Nest Coal Co., Ltd.	Gen. Manager ...	That he did fail to notify the Minister and District Inspector, that he was working a mine, Sec. 46 of The Mines Act, 1913, and Amendments.	Convicted	Fined \$5.00	\$5.30

MINE RESCUE AND FIRST AID WORK

JOHN T. STIRLING, Esq.,
Chief Inspector of Mines,
Edmonton, Alberta.

DEAR SIR,—I herewith beg to submit my annual report on Mine Rescue and First Aid Work in the province for the year 1919.

Mine rescue stations are in operation at the mines operated by the Canadian Pacific Railway Company, Department of Natural Resources, Lethbridge; North American Collieries, Ltd., Coalhurst; The Chinook Coal Co., Ltd., Commerce; The Jasper Park Collieries, Ltd., Pocahontas; The Brazeau Collieries, Ltd., Nordegg, and The Mountain Park Coal Co., Ltd., Mountain Park.

In addition to these stations there are also three cars in operation. Car No. 1 visits all the mines in the Crow's Nest Pass District; Car No. 2, the mines at Canmore and Bankhead, and Car No. 3, the mines in the Drumheller and Big Valley Districts.

Car No. 1 is under the charge of Mr. Edward Royle, Car No. 2, Mr. Wm. B. Powell, and Car No. 3, Mr. John Hooks. The Lethbridge, Commerce and Coalhurst stations are under the charge of Mr. Samuel Troman; the Pocahontas station, Mr. J. H. McMillan; the Nordegg station, Mr. James M. Stewart, and the Mountain Park station, Mr. James Derbyshire, with Mr. Duncan McDonald of Calgary, General Superintendent of Mine Rescue Cars and Stations, having general supervision of all mine rescue work in the province.

The superintendent in charge of the cars and the Lethbridge, Commerce, and Coalhurst stations, devote their whole time to instruction in first aid and mine rescue work, while the superintendents of the other stations are employed at the mines where the stations are located and devote whatever portion of their time is necessary to this work.

Messrs. Troman, Hooks and Royle are returned soldiers and it is intended that, when consistent with efficiency, returned soldiers will in future be appointed superintendents of all mine rescue cars and stations.

The cars are fully equipped for mine rescue work and are divided into lecture-room, office, kitchen and toilet. A small gasoline operated engine and generator with a set of storage batteries for recharging electric cap lamps that are used by the men when in training have been installed in each car, these plants also supply light for cars. Provision is also made for cooking and sleeping accommodation for persons engaged in mine rescue work. The cars can either be heated by heaters installed on the cars, or by steam supplied from the mine at which they are stationed.

Provision is also made at each car and station for the recharging of the portable electric lamps, by the electric plant at the mine at which the car or station is located, so that these lamps can be recharged without having to be removed from the car. This is in addition to the electric plant that is installed on each car.

The Edison electric cap lamp has now been installed on all the cars and stations with the exception of Car No. 2 which has the Wico electric cap lamp. The Lethbridge, Commerce and Coalhurst stations have the use of the Edison electric cap lamps at the mines at which these stations are located.

All the mine rescue apparatus at present in use in the province are of the Proto type, except in Car No. 3, in which there are five sets of the Gibbs type apparatus.

The following is the equipment kept in each car and station :

Equipment	CARS			Leth- bridge Station	Coalhurst Station	Commerce Station	Nordegg Station	Poca- hontas Station	Mountain Park Station	Totals
	No. 1	No. 2	No. 3							
Breathing apparatus (Gibbs)	10	10	5	10	5	5	7	6	6	5
Breathing apparatus (Proto)	1	1	5	1	1	1	1	1	1	61
Compression Pump (Proto)	1	1	1	1	1	1	1	1	1	3
Compression Pump (Draeger)	1	1	2	1	1	1	1	1	1	6
Pulmotor Type A	1	1	1	1	1	1	1	1	1	10
Pulmotor Type B	1	1	1	1	1	1	1	1	1	1
Lungmotor	1	1	1	1	1	1	1	1	1	2
Inhalation apparatus	1	1	1	1	1	1	1	1	1	3
Animal air tester	1	1	1	1	1	1	1	1	1	9
Meter for testing reducing valves	1	1	1	1	1	1	1	1	1	9
Electric cap lamp (Edison)	12	12	12	12	12	12	12	12	12	60
Electric cap lamp (Wico)	2	2	1	2	1	1	1	1	1	12
Stretchers	1	1	1	1	1	1	1	1	1	11
First aid cabinet	1	1	1	1	1	1	1	1	1	7
Oxygen cylinders, 100 cub. ft. capacity (Proto)	12	12	12	8	5	5	9	10	10	49
Oxygen cylinders, 150 cub. ft. capacity (Draeger)	12	12	12	8	5	5	9	10	10	49
Stick caustic soda in lbs.	972	500	60	372	298	100	700	550	8	22
Lump caustic soda in lbs.	4,032	2,400	60	2,726	1,188	1,156	2,398	1,850	953	4,505
Smoke helmets	6	6	1	5	5	1	3	3	2,848	18,658
Rectifier for re-charging electric lamps ..	1	1	1	1	1	1	1	1	1	2
Air generator for Gibbs apparatus	1	1	45	1	1	1	1	1	1	45
Canvas tent 12 x 14	1	1	1	1	1	1	1	1	1	1
Charging racks for Edison electric cap lamps	1	1	1	1	1	1	1	1	1	1
Spare rubber breathing bags	9	10	6	9	1	1	8	5	5	54

In addition, a sufficient supply of spare parts is kept at each car and station, so that repairs can be promptly made should any part of the apparatus become defective at any time.

The schedule of training at the stations and cars is as follows:

FIRST DAY

Explanation of the apparatus by the Superintendent and demonstration with the pulmotor, lungmotor and inhalation apparatus, compression pump and animal air tester.

SECOND DAY

Each member of the team takes apart and assembles the apparatus, repeating the same until all are fully familiar with each part. Each member of the team demonstrates the application of the pulmotor, lungmotor and inhalation apparatus.

THIRD DAY

Each member of the team wears the apparatus for two hours in fresh air while walking a distance of one mile.

FOURTH DAY

Each member of the team wears the apparatus one hour in fresh air and one hour in smoke room in a vitiated atmosphere, making five trips through a tunnel 35 feet in length by 18 inches in height by 24 inches in width.

FIFTH DAY

The members of the team wear the apparatus for two hours in a vitiated atmosphere in the smoke room, and build a brick stopping six feet square.

SIXTH DAY

The members of the team wear the apparatus for two hours in a vitiated atmosphere in the smoke room, and build a brick stopping six feet square, after which they make 10 trips through a tunnel and carry 1,000 lbs. of rock a distance of 30 feet.

SEVENTH DAY

Team makes a trip underground, carrying a stretcher for a distance of two miles.

EIGHTH DAY

The work done on the seventh day is repeated.

NINTH DAY

The work done on the sixth day is repeated.

TENTH DAY

The team wears the apparatus for two hours and transports a weight of 100 lbs. on a stretcher up an incline rising 1 in 7 and 1,000 yards in length, then proceeds into a vitiated atmosphere in the smoke room and builds a brick stopping 6 feet square with a regulator 24 inches square through which a man is carried on the stretcher.

At the finish of each period of training each member of the team is required to thoroughly clean the apparatus he has been using, and to re-charge the small cylinder and reassemble the apparatus, leaving it ready for use.

The complete course of training lasts ten days of two hours each. Since January, 1918, it has been arranged that before a certificate of competency is granted to any person in mine rescue work they are required to pass an examination in the work. These examinations are held during the months of March and April in each year.

The number of men that have been trained throughout the province during the year in mine rescue and first aid work has been very satisfactory.

Classes for the purpose of giving instruction in first aid work have been taken advantage of at a large number of the mines, with the result that the students who attended these classes have been successful in obtaining first aid certificates for 1st, 2nd and 3rd year from the St. John's Ambulance Association.

Arrangements have been made whereby two teams are selected from the trained men at each mine and each member of the team is required to take at least three hours' training during each month, for which he is paid 50c per hour. This payment is made by the Workmen's Compensation Board, on receipt of a time-sheet from the superintendent of each car and station.

The teams are composed of five men each, one of whom is appointed captain. These arrangements were put into effect on the 1st of November, 1916, but since the month of June, 1919, the amount was increased to 70c per hour.

Before any person is allowed to commence training in the use of mine rescue apparatus, he is required to undergo a very strict medical examination.

In addition to the apparatus provided at the stations and cars the following mines have installed resuscitation devices.

Name of Mine	Pulmotor		Lungmotor
	Type A.	Type B.	
West Canadian Collieries, Ltd., Bellevue	2	..	1
International Coal & Coke Co., Ltd.	1	..	..
Hillcrest Collieries, Ltd. ....	..	..	1
	<u>3</u>	<u>..</u>	<u>2</u>

The following table gives particulars as to the number of persons trained in first aid and mine rescue work at the different mines in the province since this work was first organized, but does not include those who may have been trained elsewhere than in the province:

Name of Mines	No. of persons trained previous to 1919		No. of persons trained during 1919	
	Mine Rescue	First Aid	Mine Rescue	First Aid
C. P. R. No. 6 Mine	117	113	10	15
C. P. R. No. 3 Mine	45	37	5	10
North American Collieries, Ltd. Coalhurst	78	77	10	10
Chinook Coal Co., Ltd., Commerce Rock Springs Coal & Brick Co., Ltd., Taber	39	58	5	..
Canada West Coal Co., Ltd., Taber West Canadian Collieries, Ltd., Blairmore	15	10	..	15
West Canadian Collieries, Ltd., Blairmore	40	50	15	10
West Canadian Collieries, Ltd., Bellevue	38	10	11	10
McGillivray Creek Coal & Coke Co., Ltd.	68	30	5	5
Leitch Collieries, Ltd., Passburg.. International Coal & Coke Co., Coleman	35	45	..	..
Hillcrest Collieries Ltd.	10	10	10	15
Franeo-Canadian Collieries Ltd. .. Burmis Coal Co., Ltd.	32	92	15	..
Maple Leaf Coal Co., Ltd.	20	36	..	..
Brazeau Collieries Ltd.	10	5	..	..
Canmore Coal Co., Ltd.	5	5	15	20
C. P. R. Co., Bankhead	67	55	10	..
Georgetown Collieries, Ltd.	60	12	10	..
Jasper Park Collieries, Ltd.	40	5	10	..
Mountain Park Collieries, Ltd.	13	..	..	..
Western Gem Mining Co., Ltd. Drumheller	60	30	5	..
Western Commercial Coal Co., Ltd. Wayne	10	10	5	..
Rosedale Coal Mining Co., Wayne Rosedale Coal & Clay Products Co., Ltd., Rosedale	10	5	5	..
Drumheller Land Co., Ltd.	10	5	10	..
Premier Coal Co., Ltd., Drum- heller	5	10	25	10
Great West Coal Co., Ltd., Aerial Alberta Block Coal Co., Ltd., Drumheller	5	5	5	..
Newcastle Coal Co., Ltd., Drum- heller	5	5	5	..
Midland Collieries, Ltd., Drum- heller	5	5	5	..
North American Collieries, Ltd., Drumheller	10	5	5	..
Sterling Coal Co., Ltd., Drum- heller	5	5	5	..
Atlas Coal Co., Ltd., Drumheller Scranton Coal Co., Ltd., Drum- heller .....	..	5	5	..
Jewell Collieries Ltd., Wayne ..	..	5	5	..
Hamilton Coal Co., Ltd., Wayne ..	..	5	5	..
Excelsior Collieries Ltd., Wayne.. Big Valley Collieries .....	..	5	5	..
	5	5	5	..
	925	780	241	130

Name of Mines	No. of persons trained previous to 1919		No. of persons trained during 1919	
	Mine Rescue	First Aid	Mine Rescue	First Aid
Brought Forward	925	780	241	130
Robin Hood Coal Co., Ltd. ....	..	..	10	..
Hy-Grade Coal Co. of Drumheller Ltd. ....	..	..	10	..
Elgin Coal Co., Ltd., Drumheller ..	..	..	5	..
Wayne Coal Co., Ltd., Wayne ...	..	..	5	..
Newcastle Junior Coal Co., Ltd. Drumheller ....	..	..	5	..
	925	780	276	130

It will be noted from this table that 1,201 men have undergone training with mine rescue apparatus and 910 men in first aid work.

No calls have been made to any of the mine rescue cars or stations during the year.

During the year no accidents have occurred in connection with the training of Mine Rescue crews. The Proto apparatus has proved to be very satisfactory, and training at all stations and cars has been carried on very efficiently during the year.

Since March 1st, 1919, all expenses and salaries in connection with the equipment and operation of mine rescue stations and cars, have been paid by the Workmen's Compensation Board through an assessment that is made on all mine operators in the province. This is working satisfactorily.

The Canadian Mining Institute has installed, at each station and car, a branch library and provides the following publications: "Coal Age," "Science and Art of Mining," and "The Colliery Guardian," to which all mine employees and mining students have access.

A contest in first aid and mine rescue work was held at Calgary on July 1st, mine rescue teams taking part in the contest from the following mines in the province: Drumheller Land Co., Ltd., Drumheller; Rosedale Coal & Clay Products Co., Ltd., Rosedale; Hy-Grade Coal Co. of Drumheller, Ltd., Drumheller; Brazeau Collieries, Ltd., Nordegg; West Canadian Collieries, Ltd., Blairmore. Teams taking part in the first aid contest were from: C. P. R., No. 6 Mine, Lethbridge, and International Coal & Coke Co., Ltd., Coleman.

The successful contestants of the mine rescue competition were as follows: 1st, Brazeau Collieries, Ltd., Nordegg, who were awarded gold medals and shield; 2nd, Drumheller Land Co., Ltd., Drumheller, who were awarded silver medals; 3rd, West Canadian Collieries, Ltd., Blairmore; 4th, Hy-Grade Coal Co. of Drumheller, Ltd.

First aid work: 1st, International Coal & Coke Co., Ltd., Coleman, who were awarded gold medals and shield; 2nd, C. P. R., No. 6 Mine, Lethbridge, who were awarded silver medals.

A contest in mine rescue work was held in Drumheller on July 29th, six gold medals being awarded to the successful team by The Red Deer Valley Coal Operators' Association. The mine rescue teams who competed in the contest were from The Drumheller Land Co., Ltd., and Rosedale Coal & Clay Products Co., Ltd., Rosedale. The successful contestants were the Rosedale Coal & Clay Products Co., Ltd., team who were awarded the gold medals.

Official tests were made by Duncan McDonald, Gen. Supt. of Mine Rescue Stations and Cars, on July 2nd and 3rd, at Calgary, with the Proto, Gibbs and the Paul self-contained breathing apparatus.

The increased interest in the annual contest for mine rescue and first aid work is very pronounced.

Your obedient servant,

(Sgd.) DUNCAN McDONALD,

Gen. Supt. of Mine Rescue Work.

LIST OF NAMES OF HOLDERS OF MINE RESCUE CERTIFICATES ISSUED BY
THE PROVINCE OF ALBERTA DURING 1919.

Name	Address	Cert. No.	Date Issued
Audueny, B. Peter V.	Drumheller ..	484	24-2-19
Andrews, Thomas	Drumheller	489	24-2-19
Anderson, Victor	Nordegg	518	8-4-19
Adams, Joseph S.	Drumheller	539	25-7-19
Burns, John	Rosedale	459	6-2-19
Briggs, Leroy L.	Aerial	473	21-2-19
Barclay, William	Drumheller	486	24-2-19
Butler, George	Aerial	488	24-2-19
Beveridge, Archibald	Coleman	506	11-3-19
Blackey, Aaron	Hillcrest	509	22-3-19
Bambrough, George	Hillcrest	516	22-3-19
Babino, Arthur	Bankhead	526	28-4-19
Briggs, Alfred J.	Calgary	527	28-4-19
Bowman, Martin	Drumheller	535	25-7-19
Bobovsky, Martin	Drumheller	545	5-9-19
Bond, William	Wayne	551	3-10-19
Baird, George A.	Wayne	552	3-10-19
Chaplain, Frederick William	Rosedale	449	6-2-19
Chambers, George Henry	Drumheller	478	24-2-19
Crockett, Levi	Blairmore	530	19-6-19
Chappel, W. H.	Blairmore	531	19-6-19
Cunningham, Frank	Rosedale	537	25-7-19
Cleary, William J.	Rosedale	540	25-7-19
Dean, Andrew	Coalhurst	467	14-2-19
Dukelow, Fred	Drumheller	479	24-2-19
Duncan, Ninian S.	Wayne	495	28-2-19
Dawes, Harry	Wayne	496	28-2-19
Evans, Thomas	Blairmore	502	11-3-19
Eckert, William	Drumheller	541	25-7-19
Fisher, Ernest	Bellevue	500	11-3-19
France, Harry	Nordegg	524	8-4-19
Grant, Donald Archie	Hillcrest	517	22-3-19
Hillary, John	Rosedale	460	6-2-19
Higney, John	Coalhurst	465	14-2-19
Hutchison, John S.	Lethbridge	468	14-2-19
Hickon, William S.	Drumheller	493	28-2-19
Homer, James E. Lucas	Wayne	498	28-2-19
Hetherington, William Bell	Calgary	499	4-3-19
Houze, Ernest	Blairmore	501	11-3-19
Haggerty, Peter	Hillcrest	515	22-3-19
Huff, Lewis E.	Lethbridge	523	8-4-19
Hamilton, Allan	Blairmore	532	19-6-19
Irwin, Edwin	Nordegg	521	8-4-19
Instonc, Henry	Hillcrest	528	2-5-19
Jones, Evan John	Wayne	491	28-2-19
Jones, Richard	Nordegg	520	8-4-19
Kinjurr, Pete	Rosedale	458	6-2-19
Kane, Norman	Wayne	494	28-2-19
Kroetor, Nicholas	Hillcrest	513	22-3-19
Kyle, Daniel Campbell	Hillcrest	514	22-3-19

Name	Address	Cert. No.	Date Issued
Law, James	Rosedale	454	6-2-19
Loxton, John	Coalhurst	466	14-2-19
Lawrence, John	Drumheller	480	24-2-19
Lecuyer, Glenn	Midlandvale	490	28-2-19
Lavelle, John	Redcliff	497	28-2-19
Latcher, John	Canmore	510	22-3-19
Lynch, Stewart	Canmore	512	22-3-19
Lee, Walter John	Nordegg	522	8-4-19
Litherland, Elias	Bellevue	543	5-8-19
Love, William	Wayne	547	3-10-19
McIntyre, John J.	Rosedale	450	6-2-19
McNiven, Stewart	Rosedale	455	6-2-19
McPherson, John Mathew	Coalhurst	469	14-2-19
McKelvie, James	Drumheller	481	24-2-19
McDicken, James	Coleman	505	11-3-19
McDonald, Alex. J.	Drumheller	538	25-7-19
McLeod, Allan	Rosedale	542	5-8-19
McDougall, Duncan R.	Wayne	550	3-10-19
Morley, William	Rosedale	452	6-2-19
Mathewson, James	Nevis	453	6-2-19
Moodie, Kenneth	Rosedale	457	6-2-19
Morgan, David	Rosedale	461	6-2-19
Melvine, James Logan	Lethbridge	464	14-2-19
Miller, John Robert	Aerial	477	21-2-19
Murphy, Peter J.	Drumheller	525	29-4-19
Marcolli, Enrico	Hillcrest	529	2-5-19
Monkton, William	Rosedale	546	2-10-19
Nelson, Walter	Coleman	504	11-3-19
Noah, Ellis	Rosedale	533	25-7-19
Pedazus, Albert	Drumheller	483	24-2-19
Palm, Frank	Blairmore	503	11-3-19
Radden, William	Rosedale	451	6-2-19
Richards, Thomas	Coalhurst	463	14-2-19
Russell, John	Wayne	476	21-2-19
Richards, Edward	Drumheller	485	24-2-19
Rogers, Daniel	Coleman	507	11-3-19
Rappel, Thomas	Calgary	519	8-4-19
Reynolds, Percy William	Rosedale	544	5-8-19
Robertson, Charles	Wayne	549	3-10-19
Sutherland Edward	Wayne	492	28-2-19
Still, Clinton	Drumheller	534	25-7-19
Simpson, William George	Drumheller	536	25-7-19
Thompson, Andrew	Aerial	475	21-2-19
Thomason, Charles	Coleman	508	11-3-19
Thompson, David	Canmore	511	22-3-19
Walker, Charles Currie	Rosedale	456	6-2-19
Whyte, William	Lethbridge	462	14-2-19
Walton, Jacob Smith	Lethbridge	470	14-2-19
Watson, Adam F.	Lethbridge	471	14-2-19
Ward, Nathan, Albert	Aerial	472	21-2-19
Wisner, Vernon	Aerial	474	21-2-19
Walker, Samuel	Drumheller	482	24-2-19
Welsh, Fred	Drumheller	487	24-2-19
Wood, Samuel Wilfred	Wayne	548	3-10-19

ANALYSES OF COAL

Date on which sample was taken	Name of persons taking sample	Kind of sample	Name of operator of mine from which sample was taken	Address	Proximate Analysis			Ash	Calorific Value in B.T.U.	Remarks
					Moisture	Volatile Matter	Fixed Carbon			
9- 1-19	Moses Johnson	Mine	M. P. Collieries	Elcan	14.0	31.3	43.2	11.5	9,530	Room No. 12
9- 1-19	Moses Johnson	Mine	W. R. Hughes and Margaret Howells	Elcan	15.1	31.7	45.9	7.3	10,000	Room No. 4
23- 1-19	R. J. Lee	Mine	Bish Bros. & LeGear	Forestburg	25.3	28.7	37.8	8.2	8,400	Room No. 1
25- 1-19	R. J. Lee	Mine	Round Hill Collieries, Ltd.	Roundhill	26.0	29.2	38.7	6.1	8,540	Fresh face Stripping pit
30- 1-19	R. J. Lee	Mine	North American Collieries, Ltd.	Lovetville	6.5	32.6	53.3	7.6	11,400	West level
31- 1-19	R. J. Lee	Mine	Oliphant-Munson Collieries, Ltd.	Basing	6.1	34.5	52.7	6.7	11,390	No. 1 entry
14- 2-19	Moses Johnson	Mine	P. Burns Coal Mines, Ltd.	Okotoks	1.0	15.6	68.2	15.2	12,830	Face prospect entry.
14- 2-19	Moses Johnson	Mine	David S. Blacklock	Lineham	10.2	31.7	50.1	8.0	10,870	No. 2 room
22- 2-19	Moses Johnson	Mine	Ajax Coal & Mining Co., Ltd.	Medicine Hat	21.9	32.6	36.4	9.1	8,370	Main entry
✓ 7- 3-19	R. J. Lee	Mine	North American Collieries, Ltd.	Fransburg	18.0	28.6	43.6	9.8	9,030	No. 4 room
13- 3-19	R. J. Lee	Mine	William Dady	Clover Bar	22.1	28.6	43.3	6.0	8,815	No. 1 entry
13- 3-19	R. J. Lee	Mine	Keith & Fulton	Clover Bar	22.0	29.3	40.2	8.5	8,665	Inside room
14- 3-19	R. J. Lee	Mine	Edmonton Collieries, Ltd.	Clover Bar	21.2	30.7	40.8	7.3	8,850	Counter entry
21- 3-19	R. J. Lee	Mine	Mountain Park Coal Co. Ltd.	Edmonton	0.9	29.9	62.8	6.4	14,190	2nd Main E. entry.
✓ 22- 3-19	R. J. Lee	Mine	Cadomin Coal Co., Ltd.	Cadomin	0.8	25.5	67.7	6.0	14,330	3rd west slope
27- 3-19	R. J. Lee	Mine	Dinant Coal Co., Ltd.	Dinant	23.8	33.3	34.3	8.6	8,410	Main entry
27- 3-19	R. J. Lee	Mine	Stoney Creek Collieries, Ltd.	Camrose	23.9	35.2	32.6	8.3	8,475	Main entry
5- 4-19	Moses Johnson	Mine	Louis Santoni	Groton	16.4	33.2	41.6	8.8	10,000	No. 8 room

ANALYSES OF COAL—Continued

Date on which sample was taken	Name of persons taking sample	Kind of sample	Name of operator of mine from which sample was taken	Address	Proximate Analysis			Ash	Calorific Value in B.T.U.	Remarks
					Moisture	Volatile Matter	Fixed Carbon			
5-4-19	Moses Johnson	Mine	E. T. Davies	Lucky Strike	14.8	34.8	41.4	9.0	10,200	No. 10 room
14-4-19	R. J. Lee	Mine	Alberta Coal Mining Co.	Edmonton	22.6	27.7	42.6	7.1	8,630	No. 22 room
23-4-19	R. J. Lee	Mine	Humberstone Coal Co., Ltd.	Beverly	21.2	30.3	41.2	7.3	8,840	No. 6 west entry
23-4-19	R. J. Lee	Mine	Bush Mine Co., Ltd.	Beverly	22.8	28.3	42.0	6.9	8,730	Main entry
5-6-19	Moses Johnson	Mine	Joseph Blusson	Champion	11.8	31.8	48.6	7.8	10,195	No. 1 room
18-6-19	Jas. A. Richards	Mine	Lakeside Coals, Ltd.	Wabamun	19.60	30.48	41.57	8.35	9,101	Mouth west entry
21-6-19	J. A. Richards	Mine	Great West Coal Co., Ltd.	Clover Bar	23.41	30.15	39.32	7.12	8,702	"C" entry north
21-6-19	J. T. Stirling	Mine	North American Collieries, Ltd.	Dodds	25.32	30.80	36.80	7.08	8,500	Face of Stripping pit
29-8-19	J. A. Richards	Mine	North American Collieries, Ltd.	Evansburg	17.3	30.7	43.5	8.5	9,480	Main north entry
29-8-19	J. A. Richards	Mine	North American Collieries, Ltd.	Evansburg	15.8	30.6	42.3	11.3	9,190	Face No. 4 Face 1st room
19-9-19	J. A. Richards	Mine	Thomas Strickland	Carbondale	23.0	32.0	36.3	8.7	8,450	North entry
27-9-19	J. A. Richards	Mine	Dobell Coal Co. of Tofield, Ltd.	Tofield	26.9	31.1	39.1	2.9	8,885	Stripping pit
7-10-19	J. A. Richards	Mine	North American Collieries, Ltd.	Macmine	15.2	33.0	43.5	8.3	9,790	No's 1 and 2 S. Entry of 2nd east.
8-10-19	J. A. Richards	Mine	Alberta Block Coal Co., Ltd.	Drumheller	16.1	33.1	42.4	8.4	9,530	Face of 2nd
8-10-19	J. A. Richards	Mine	Premier Coal Co., Ltd.	Drumheller	17.4	31.8	45.6	5.2	10,010	Butt C entry
8-10-19	J. A. Richards	Mine	Newcastle Coal Co., Ltd.	Drumheller	15.9	33.1	46.5	4.5	10,225	No. 12 room
8-10-19	J. A. Richards	Mine	Atlas Coal Co., Ltd.	Drumheller	16.5	33.4	43.8	6.3	9,960	Face No. 2 South entry
8-10-19	J. A. Richards	Mine	Atlas Coal Co., Ltd.	Drumheller	16.5	33.4	43.8	6.3	9,960	Main entry
8-10-19	J. A. Richards	Mine	Atlas Coal Co., Ltd.	Drumheller	16.5	33.4	43.8	6.3	9,960	No. 9 room

ANALYSES OF COAL—Continued

Date on which sample was taken	Name of persons taking sample	Kind of sample	Name of operator of mine from which sample was taken	Address	Proximate Analysis			Ash	Calorific Value in B.T.U.	Remarks
					Moisture	Volatile Matter	Fixed Carbon			
9-10-19	J. A. Richards	Mine	Hy-Grade Coal Co. of Drumheller, Ltd.	Drumheller	16.7	33.4	42.5	7.4	9,810	2nd North Entry
9-10-19	J. A. Richards	Mine	Drumheller Land Co., Ltd.	Drumheller	15.7	32.7	42.5	9.1	9,505	West Entry
9-10-19	J. A. Richards	Mine	Midland Collieries, Ltd.	Drumheller	14.3	33.1	46.0	6.6	10,050	Main west entry
9-10-19	J. A. Richards	Mine	Scranton Coal Co., Ltd.	Drumheller	15.2	32.3	45.6	6.9	10,045	Main entry
9-10-19	J. A. Richards	Mine	Western Gem Mining Co.	Drumheller	16.8	30.9	45.2	7.1	9,725	Main entry
10-10-19	J. A. Richards	Mine	Rosedale Coal & Clay Products Co., Ltd.	Rosedale	15.9	32.3	44.7	7.1	9,780	2nd East entry
10-11-19	Jas. Crowder	Mine	West Canadian Collieries, Ltd.	Blairmore	1.3	24.1	68.5	6.1	14,140	Main entry
11-11-19	Jas. Crowder	Mine	International Coal & Coke Co., Ltd.	Coleman	1.6	24.8	57.7	15.9	12,420	"B" level
13-11-19	Jas. Crowder	Mine	McGillivray Creek Coal & Coke Co., Ltd.	Coleman	1.2	24.8	61.6	12.4	13,200	No. 79 room
13-11-19	W. Shaw	Mine	Blue Gem Collieries Co.	Three Hills	18.3	29.1	44.4	8.2	9,540	No. 1 room
14-11-19	Jas. Crowder	Mine	Bellevue Collieries, Ltd.	Bellevue	1.6	27.6	57.9	12.9	12,910	No. 1 room
14-11-19	Jas. Crowder	Mine	West Canadian Collieries, Ltd.	Bellevue	.6	27.4	58.4	13.6	12,890	No. 1 mine
14-11-19	W. Shaw	Mine	C. L. Kusler	Trochu	19.1	28.8	43.9	8.2	9,350	Main entry
15-11-19	Moses Johnson	Mine	North American Collieries, Ltd.	Lethbridge	10.7	30.7	46.5	12.1	10,430	No. 4 room
17-11-19	Jas. Crowder	Mine	Hillcrest Collieries, Ltd.	Hillcrest	4.3	28.6	54.2	12.9	12,370	No. 4 entry
17-11-19	Jas. Crowder	Mine	Mutz & Scott	Blairmore	3.2	25.6	59.8	11.4	13,030	No. 2 entry
17-11-19	Moses Johnson	Mine	Dept. of Natural Resources C. P. R.	Lethbridge	10.0	32.9	47.7	9.4	10,880	No. 2 room
18-11-19	Moses Johnson	Mine	Canada West Coal Co., Ltd.	Taber	13.0	32.5	44.8	9.7	9,920	No. 13 room
19-11-19	Moses Johnson	Mine	John & Joseph Oliphant	Medicine Hat	26.3	29.0	36.5	8.2	8,030	Main back entry

Date on which sample was taken	Name of persons taking sample	Kind of sample	Name of operator of mine from which sample was taken	Address	Proximate Analysis			Ash	Calorific Value in B.T.U.	Remarks
					Moisture	Volatile Matter	Fixed Carbon			
19-11-19	Moses Johnson	Mine	Regal Collieries, Ltd.	Taber	14.9	32.5	45.3	7.3	10,120	No. 6 room
20-11-19	Moses Johnson	Mine	Redcliff Brick & Coal Co., Ltd.	Redcliff	24.0	31.5	39.0	5.5	8,760	No. 1 entry
21-11-19	D. MacDonald	Mine	Rosedeer Coal Mining Co., Ltd.	Wayne	16.9	32.3	44.7	6.1	9,940	No. 6 room
21-11-19	D. MacDonald	Mine	Western Commercial Co. Ltd.	Wayne	17.2	32.1	44.8	5.9	9,910	No. 3 entry
21-11-19	D. MacDonald	Mine	Excelsior Collieries, Ltd.	Wayne	16.6	33.2	42.9	7.3	9,690	No. 5 room
21-11-19	D. MacDonald	Mine	Jewell Collieries, Ltd.	Wayne	16.3	34.2	41.9	7.6	9,690	Main entry
21-11-19	D. MacDonald	Mine	Hamilton Coal Co., Ltd.	Wayne	17.5	32.8	43.4	6.3	9,760	Main entry

The above analyses were made at the University of Alberta on samples taken at the mine face by the District Inspectors of Mines and forwarded in sealed jars.

There were no commercial samples taken during the year.

The following table gives the names and numbers of the districts, along with the name and address of the District Inspector of Mines in charge of each:

No. of District	Name of District	Name and Address of District Inspector of Mines.
1 2	Crow's Nest Pass Pincher Creek	James Growder, Blairmore, Alberta, Telephone No. 70.
3 4 5 6 7 8 9 10 16	Lethbridge Magrath Milk River Taber Bow Island Medicine Hat Aldersyde High River Brooks	Moses Johnson, Lethbridge, Alberta, Telephone No. 325.
13 14	Drumheller Big Valley	Duncan McDonald, Calgary, Alberta. Telephone No. M 2140.
17 19 12 20 21 11 15	Hanna Trochu Banff Three Hills Carbon Canmore Brazeau	David Shanks, Calgary, Alberta. Telephone No. M 2140.
18 22 23 24 25 26 27 28 29 30 31 32 33 34	Lacombe Battle River Camrose Tofield Clover Bar Edmonton Nanaimo Cardiff Wabamun Pembina Jasper Park Yellowhead Pass Mountain Park Peace River	Wm. Shaw, Edmonton, Alberta. Telephone No. 1089.

In addition to the above, Mr. James A. Richards, 11009 89th Ave., Edmonton is acting in the capacity of General District Inspector of Mines. Telephone No. 3662.

LIST OF MINES

The following table gives particulars of mines which have been opened in the province:

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		Re-opening
				S.	T.	R. M.		Open-	Aban-	
42	Alberta Railway & Irrigation Co. . . .	Lethbridge	2	10	5	1	Domestic . . .	1905	1906	....
76	Alberta Coal & Coke Co., The	Lundbreck	2	23	7	2	Domestic . . .	1906	1909	....
129	Alberta Coal Mining Co., Ltd.	Edmonton	28	N. E. ½ . . .	55	25	Domestic . . .	1907	....	....
223	Adams Coal Mine Co., Ltd.	Lethbridge	3	S. E. ¼ . . .	16	10	Domestic . . .	1910	1913	....
270	Arblaster & Lloyd	Bow Island	7	S. E. ¼ . . .	5	11	Domestic . . .	1911	1913	....
390	Abel, W. S.	Kippenville	5	S. W. ¼ . . .	1	3	Domestic . . .	1913	1916	....
432	Ashmore, James	Reid Hill	9	S. E. ¼ . . .	24	16	Domestic . . .	1914	1915	....
443	Anderson, William John	Sheerness	17	L. S. 1 . . .	12	29	Domestic . . .	1914	....	....
✓ 474	Armour & Stauffer	Morrin	14	L. S. 2 . . .	31	21	Domestic . . .	1914	1915	....
✓ 475	Aune, George	Morrin	13	22	31	21	Domestic . . .	1915	1915	....
✓ 620	Alberta Block Coal Co., Ltd.	Drumheller	19	N. W. ¼ . . .	3	29	Domestic . . .	1915	....	....
631	Ardley Coal Co., Ltd.	Calgary	19	L. S. 7 . . .	17	38	Domestic . . .	1916	....	....
632	Alberta Penitentiary	Edmonton	26	River Lot, 20, Edmonton Set- tlement.			Domestic . . .	1915	....	....
672	Annon, Dominic	Winnifred	7	L. S. 3 . . .	27	12	Domestic . . .	1916	....	....
✓ 684	Atlas Coal Co.	Drumheller	13	S. E. ¼ . . .	10	29	Domestic . . .	1917	....	....
✓ 690	Ant Hill Coal Co., Ltd., The	Rowley	14	L. S. 4 . . .	13	32	Domestic . . .	1917	....	....
708	Auchenback, Andrew	Thelma	5	N. E. ¼ . . .	12	7	Domestic . . .	1917	1917	....
712	Archibald, D.	Elean	6	L. S. 8 . . .	4	10	Domestic . . .	1917	1918	....
792	Allen, E. D.	Rosalind	22	N. E. ¼ . . .	18	43	Domestic . . .	1918	....	....
820	Alberta & Crow's Nest Coal Co., Ltd.	Coleman	1	N. W. ¼ . . .	3	8	Bituminous . .	1919	....	....
24	Big Island Coal Co.	Edmonton	26	L. S. 12 & 13 . . .	20	51	Domestic . . .	1897	....	....
25	Banach & Hoynak	Strathcona	26	Near Edmonton	South.	25	Domestic . . .	1897	1899	....
26	Bailey, Robert	St. Albert	27	Near St. Albert.			Domestic . . .	1897	1898	....
31	Bangs, J. A.	Lineham	10	Sheep Creek near	Lineham.		Domestic . . .	1897	1900	....
45	Baldwin, J.	Edmonton	26	Near Edmonton.			Domestic . . .	1900	1905	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of	
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
46	Bush Mine Coal Co., The	Beverly	25	River Lot 42, Edmontontonlement.			Domestic	1905	....
72	Blackfoot Indians	Gleichen	16	Indian Reserve, S. of Gleichen.			Domestic	1902	....
117	Bothamley, C. F.	Three Hills	20	L. S. 10	22	31	Domestic	1906	1908
133	Bellevue Collieries, Ltd.	Bellevue	1		16	7	Bituminous	1907	1915
137	Bennet, Isaac	Reid Hill	9	N. W. ¼	4	16	Domestic	1907	1915
143	Bell, W. J.	Bowville	10	N. E. ¼	25	14	Domestic	1907	1913
153	Burnis Coal Co.	Burnis	1	N. E. ¼	14	7	Bituminous	1907	1916
167	Ben Nevis Mines, Ltd.	Nevis	18	S. E. ¼	11	39	Domestic	1908	....
168	Beaver Dam Coal Co.	Nevis	18	N. E. ¼	2	39	Domestic	1908	1913
176	Bradshaw Mining Co.	Magrath	4		2	7	Domestic	1908	1913
187	Blacklock, Alex.	Carbon	21	L. S. 5&6.	15	29	Domestic	1909	1919
206	Burdett City Coal Co.	Burdett	7		23	10	Domestic	1909	1910
229	Berford, Edward	Taber	6	L. S. 11	18	10	Domestic	1910	1917
232	Bawlf Collieries Ltd., The	Bawlf	23		10	46	Domestic	1910	1913
234	Baker, Hoge & Baker	Eyremore	16		11	17	Domestic	1910	1916
237	Banner Coal Co., Ltd.	Cardiff	28	L. S. 5	24	55	Domestic	1910	....
240	Bitterman, Jacob	Britain	18	N. W. ¼	32	39	Domestic	1910	....
245	Bish Bros. & Le Gear	Forestburg	22	L. S. 13	36	40	Domestic	1910	....
248	Bish Bros. & Company	Hastings Coulee	22	L. S. 4	1	41	Domestic	1910	1913
256	Brazeau Collieries, Ltd.	Nordegg	15	N. W. ¼	22	40	Bituminous	1910	....
284	Big Chief Coal Mining Co., Ltd.	Kinball	5	N. W. ¼	9	1	Domestic	1911	1913
288	Baines, Herbert	Gadsby	18	S. E. ¼	28	39	Domestic	1911	1916
300	Bullock Coal Mining Co.	Pincher Creek	2		16	6	Domestic	1911	1913
302	Battle River Collieries, Ltd.	Rosenroll	23	S. E. ¼	7	46	Domestic	1911	1917
305	Bonnie Brae Coal & Quarries, Ltd.	Cochrane	11		6	26	Domestic	1911	1912
325	Blue Diamond Mine	Castor	18	L. S. 8	4	38	Bituminous	1911	1914
356	Brown, Moses	Medicine Hat	8	N. E. ¼	28	12	Domestic	1912	1916
364	Big Valley Collieries, Ltd.	Big Valley	14	N. W. ¼	1	36	Domestic	1912	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		
				S.	T.	W. M.		Open- ing	Aban- don- ment	Re- open- ing.
365	British Collieries, Ltd.	Red Deer	15		43	20	5 Bituminous	1912	1913	....
372	Bathurst Mining Co., Ltd.	Diamond City	3		5	10	4 Domestic	1912	1915	....
379	Bainbridge, James	Redcliff	8	L. S. 5	9	13	6 Shale	1913	1914	1916
391	Block Coal Collieries, Ltd.	Taber	6	N. ½	19	10	16 Domestic	1913	1916	....
401	Black, William	Lucky Strike	5	L. S. 8	10	3	11 Domestic	1913	1914	....
404	Begram, F.	Halkirk	18	18	39	15	4 Domestic	1913	1915	....
406	Consolidated with No. 433	Lineham	10	2	20	3	5 Domestic	1913	....	....
416	Burns Coal Mines, Ltd., P.	Calgary	11	L. S. 5	14	19	6 Bituminous	1913	1919	....
306	Bennie, James Scott	Lucky Strike	5		3	11	4 Domestic	1911	1914	....
429	Blue Diamond Coal Co., Ltd.	Brule Mines	31	L. S. 1	16	50	27 Bituminous	1914	....	....
433	Blacklock, David B.	Lineham	10	S. E. ¼	2	20	3 Domestic	1914	1914	....
435	Bye, E. F.	Lucky Strike	5	L. S. 9	16	3	12 Domestic	1914	1918	....
452	Borthwick, Alexander	Pincher Creek	2	S. W. ¼	17	5	1 Domestic	1914	1915	1919
454	Bambridge, Joseph	Warner	5	L. S. 12	9	4	16 Domestic	1914	1914	....
456	Brooks, Edmund, J.	Hill Springs	2	L. S. 9	13	28	4 Domestic	1914	1914	....
457	Bradley & Watson	Pincher Creek	2	16	6	30	4 Domestic	1914	1914	....
✓ 464	Brooks, Burton Thomas	Drumheller	13	L. S. 4	23	29	20 Domestic	1915	....	....
476	Blusson, Joseph	Champion	9	L. S. 9	33	15	23 Domestic	1915	....	....
485	Black Diamond Oil Field, Ltd.	Lineham	10		29	19	4 Domestic	1915	1915	....
486	Brown, Charles E.	Hanna	17	L. S. 6&7	29	32	13 Domestic	1915	....	....
602	Burns, Arthur	Little Plume	8	L. S. 6	2	9	5 Domestic	1915	....	....
✓ 619	Ball, Matthew	Brida	19	N. E. ¼	10	35	21 Domestic	1915	1916	....
647	Brisco, Frank	Hill Springs	5	L. S. 4	3	4	27 Domestic	1916	1918	....
655	Brown, Samuel H.	Halcourt	34	L. S. 6	21	70	7 Domestic	1916	1918	....
659	Bennett, Isaac	Armada	9	L. S. 9	29	16	21 Domestic	1916	1918	....
665	Bergren & Anderson	Gadsby	18	N. E. ¼	21	39	16 Domestic	1916	....	....
689	Bragdich, George	Thelma	5	L. S. 5	18	7	2 Domestic	1917	....	....
700	Brooks & King	Elean	6	L. S. 2	10	10	17 Domestic	1917	1917	....
716	Bare, W. R.	Mayercroft	2	L. S. 9	27	10	3 Domestic	1917	1919	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			Character of Coal	Date of	
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
736	Blacklock, Dave B.	Lineham	10	S. ½	2	20	Domestic	1918	....
755	Brisco, Frank	Cardston	5	W. ½	34	3	Domestic	1918	....
757	Bow City Coal Co.	Eyremore	16	S. W. ¼	32	17	Domestic	1918	....
774	Britannia Collieries Ltd.	Wabamun	29	R. A. between 7 & 8	53	4	Domestic	1918	....
780	Brooks, C. T.	Bow Island	7	L. S. 2	1	12	Domestic	1918	....
781	Bow City Coal Co.	Eyremore	16	S. W. ¼	32	16	Domestic	1918	....
786	Burns Coal Mines, Ltd., P.	Calgary	11	L. S. 3	14	19	Bituminous	1918	....
804	Betts, Alma	Manyberries	5	L. S. 9	18	3	Domestic	1919	....
811	Blue Jen Collieries, Ltd.	Three Hills	20	W. ½	36	31	Domestic	1919	....
829	Blackstone Coal, Limited	Lovettville	32	S. E. ¼	19	47	Bituminous	1919	....
833	Brookdale Collieries Ltd.	Lovettville	32	L. S. 6	16	47	Bituminous	1919	....
2	Canmore Coal Co., Ltd.	Canmore	11	L. S. 6	29	24	Bituminous	1896	....
3	Canadian Pac. Ry. Dept. Nat. Res.	Lethbridge	3	L. S. 13	6	9	Domestic	1895	....
9	Clover Bar Coal Co., Ltd.	Beverly	26	S. W. ¼	18	53	Domestic	1897	....
14	Consolidated with No. 9	Edmonton	26	L. S. 1	18	53	Domestic	1897	....
32	Cardiff Collieries Ltd., The	Cardiff	28	N. W. ¼	24	55	Domestic	1902	....
44	Carpenter, Elia	St. Albert	27	S. W. ¼	17	55	Domestic	1897	1899
59	Cartwright, Chas. E.	Lundbreck Mine	2	N. E. ¼	26	7	Domestic	1902	....
62	Cresswell, Charles	Medicine Hat	8	Near Medicine Hat.			Domestic	1902	1906
63	Cameron, John	Okotoks	10	Near Okotoks.			Domestic	1902	1904
178	Consolidated with No. 397	Namao	27	S. E. ¼	8	55	Domestic	1908	....
80	Can. Pac. Ry. Dept. Nat. Res.	Bankhead	12	S. E. ¼	19	26	Anthracite	1903	....
83	Consolidated Coal Mining Co.	Medicine Hat	8		2	9	Domestic	1905	1907
93	Cameron, John	Edmonton	26	R. L. 18			Domestic	1904	1906
105	Canada West Coal Co., Ltd., The	Taber	6	L. S. 7	31	9	Domestic	1905	....
121	Carbon Brick & Coal Co.	Carbon	21		19	29	Domestic	1906	1909
132	Canadian Pacific Railway Co.	Taber	6	L. S. 14	7	10	Domestic	1907	....
207	Carbon Hill Coal & Coke Co.	Spokane	1		3	6	Bituminous	1909	1913

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.		Character of Coal	Date of	
				S.	T.		Open- ing	Re- open- ing
230	Cousins, R. W. K.	Cochrane	11	S. E. ¼	6	26	4	5
247	Chinook Coal Co., Ltd.	Commerce	3	L. S. 7	12	10	22	4
260	Connor Coal Mining Co., Ltd.	Wabamun	29	S. W. ¼	14	53	4	5
293	Coal Securities, Ltd.	Frank	2		6	2	3	5
316	Cardston Coal & Coke Co.	Cardston	5	N. W. ¼	26	2	26	4
321	Campbell, Robert J.	Sheerness	17	L. S. 7 & 8	19	29	12	4
339	Collins, James A.	Coalspur	32		33	48	21	5
360	Castella Bros.	Standard	16	N. W. ¼	2	25	22	4
386	Cameron Bros.	Namoo	27	S. W. ¼	17	55	24	4
387	Cable Bros. & Williams	Gadsby	18	N. W. ¼	28	39	16	4
420	Clarke & Davis	Namoo	27	S. E. ¼	8	55	24	4
424	Consumers' Coal Co., Ltd.	Wabamun	29	E. ½	30	52	4	5
438	Curren, J. D.	Banff	11		33	25	11	5
460	Clemens, P. F.	Gem via Bassano	16		12	23	15	4
473	Cooke, W. R.	Morrin	14	N. E. ¼	28	31	21	4
492	Cattenach, Donald	Garden Plain	17		6	34	13	4
499	Cambrian Coal Co.	Elcan	6	L. S. 2	4	10	17	4
629	Calgary Copper Co., Ltd.	Calgary	12	Three miles north of Eldon.				
634	Clarke, A. O.	Verdant Valley	13	N. E. ¼	14	28	19	4
657	Coldren, Earl	Peace River	34	L. S. 3	28	83	21	5
680	Chapman, George	Erskine	18	S. E. ¼	34	37	22	4
693	Cadomin Coal Co., Ltd.	Cadomin	33	L. S. 14	31	46	23	5
704	Cuning, E. E.	Foreman	22	L. S. 12	25	40	16	4
722	Christie Oil Co.	Calgary	11	L. S. 1	18	26	5	5
726	Colter, Evert Charles	Drumheller	13	L. S. 16	12	28	19	4
744	Chaley, Mike	Wayne	19	L. S. 7	19	28	19	4
799	Cooper, Harry T.	Lousana	13	N. W. ¼	24	36	22	4
828	Collins, W. H.	Ferry Point	22	L. S. 6	32	43	18	4
8	Daly, William	Clover Bar	26	N. E. ¼	7	53	23	4

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of	
				S.	T.	W. M.		Open- ing	Aban- don- ment
115	Dodds, Currie & Hoding	Carbon	21	L. S. 13	12	29	23	1906	.....
106	Domestic Coal Co.	Taber	6	L. S. 6	1	10	17	1905	1918
152	Driggs, H. A.	Grassy Lake	7	N. E. ¼	15	10	13	1907	1910
155	Dawson Coal Co., Ltd.	Edmonton	26	River Lot 25, Set- tlement.					.....
166	Dweak, R. E.	Alix	18	34	38	23	23	1907	.....
173	Duncan, W. E.	Taber	6	29	9	16	16	1908	1918
190	Durrant, R. B.	Livingstone	2	N. W. ¼	36	8	2	1908	1909
236	Drowning Ford Coal Co., The	Medicine Hat	8	32	15	5	4	1909	1910
273	Davis & Green	Halkirk	18	L. S. 12	18	39	15	1910	1914
285	Davis, Thomas	Noble	9	S. E. ¼	18	11	24	1911	.....
287	Davidson, G. W.	Big Valley	14	S. W. ¼	36	35	20	1911	1913
290	Davidson, R. T.	Big Valley	14	S. W. ¼	36	35	20	1911	1914
298	Consolidated with No. 290	Big Valley	14	S. W. ¼	36	35	20	1911	1914
326	Davis, W. M.	Scollard	14	34	34	21	4	1911	1914
340	Dobell Coal Co. of Tofield, Ltd.	Tofield	24	S. E. ¼	35	50	19	1912	.....
349	Drumheller Land Co., Ltd.	Drumheller	13	L. S. 14	2	29	20	1912	.....
362	Duell, Richards	Long View	10	8	18	2	5	1912	1916
381	Davies, Evan T.	Lucky Strike	5	L. S. 13	6	3	11	1913	.....
425	Depew & Millar	Raymond	4	8	5	20	4	1914	1914
453	Davis & Brown	Pincher Creek	2	27	5	29	4	1914	1915
463	Dennis, Wilson	Maycroft	2	31	10	2	5	1914	1915
605	Donaldson, Christopher S.	Commerce	3	N. W. ¼	16	10	21	1915	1916
614	Dietrich Bros. & Johnson	Hastings Coulee	22	L. S. 4	14	42	17	1915	1916
641	Davies, Evan T.	Milk River	5	L. S. 4	35	2	16	1916	1916
669	Domestic Coal Co.	Taber	6	L. S. 3-6	1	10	17	1916	.....
707	Davidson, A. J.	Beverly	25	R. L. 40, Edmonton district.				1917	1918
735	Dukoeherville Mining Co., Ltd., The	Nanton	10	..	15	3	5	1918	.....
660	Davies, Elmer	Gadsby	18	S. E. ¼	28	39	16	1916	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			Character of Coal	Date of		
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
10	Edmonton Coal Co.	Edmonton	26	River Lot 22, Edmont- on tlement.	9	18 2	Domestic	1897	1904	....
20	Elliott & Louisberg	Edmonton	26	Near Edmonton.			Domestic	1897	1898	....
50	Edmonton Coal Co.	Edmonton	26	River Lot 20, Edmont- on tlement.	9	17 4	Domestic	1901	1904	....
68	Evans & Robinson	Edmonton	26	River Lot 25, Edmont- on tlement.	9	17 4	Domestic	1902	1905	....
70	Ellis, William	Okotoks	10		9	18 2	Domestic	1902	1911	....
118	Evans, John	Medicine Hat	8	S. E. ¼	5	13 6	Domestic	1906	1907	....
130	Elcan Valley Collieries, Ltd.	Elcan	6		3	10 17	Domestic	1907	1918	....
147	Edmonton Collieries, Ltd.	Edmonton	26	Fraser Flats, Edmont- on.	9	10 13	Domestic	1907	1911	1918
213	Ervine, S.	Grassy Lake	7		8	16 23	Domestic	1909	1914	....
218	Consolidated with No. 296	Champion	9	S. ½	8	16 23	Domestic	1909	1914	....
259	Erickson Bros.	Milk River	5	S. W. ¼	32	2 15	Domestic	1910	1913	....
296	Ellis Brothers	Champion	9	L. S. 1	8	16 23	Domestic	1911	....	....
384	Ellis Coal Co., Ltd.	Three Hills	20	S. W. ¼	36	31 24	Domestic	1913	....	....
410	Ensign, H. F.	Whitla	7		24	12 8	Domestic	1913	1915	....
449	Edall, Clark	Hastings Coulee	22	L. S. 15	36	40 16	Domestic	1914	....	....
628	Eldon Mining Co., Ltd.	Calgary	12	2½ miles South of Eldon.			Copper	1915	....	....
699	Edmonton Collieries, Ltd.	Edmonton South	25	L. S. 15	8	53 23	Domestic	1917	....	....
703	Excelsior Collieries, Ltd.	Wayne	13	L. S. 3	7	27 19	Domestic	1917	....	....
702	Enterprise Coal Co.	Elcan	6	L. S. 13	3	10 17	Domestic	1917	....	....
725	Edmonton & Iveson	Delia	17	L. S. 2	24	28 18	Domestic	1918	....	....
764	Eccles & Harvey	Beynon	13	L. S. 2	6	28 20	Domestic	1918	1919	....
810	Elgin Coal Co., Ltd.	Drumheller	13	L. S. 14	2	29 20	Domestic	1919	....	....
48	Franco-Canadian Collieries, Ltd.	Frank	1	N. W. ¼	30	7 3	Bituminous	1900	1918	....
54	Federal Coals, Ltd. No. 1	Lethbridge	3	L. S. 5	36	8 22	Domestic	1902	....	....
90	Fraser-Mackay Collieries, Ltd.	Clover Bar	25	L. S. 12	8	53 23	Domestic	1904	....	....
98	Consolidated with No. 90	Clover Bar	25	L. S. 12	8	53 23	Domestic	1906	....	....
151	Farrell, Charles	Reid Hill	9	L. S. 15	24	16 23	Domestic	1907	....	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
323	Fortune, John	Bow Island	7	L. S. 8	14	9	Domestic	1911	1918	...
342	Footie, J. C.	Pleasant View	7	L. S. 9	7	9	Domestic	1912	1916	...
351	Fortin, W.	Legal	28	25	57	25	Domestic	1912	1913	...
600	Ferguson, David	Elcan	6	4	10	17	Domestic	1915	1915	...
656	Finigan, John K.	Halcourt	34	S. W. ¼	25	70	Domestic	1916	1917	...
667	Falkner, William	Alix	18	1	39	23	Domestic	1916	1917	...
688	Furter, W. R.	Ghost Pine	21	33	20	22	Domestic	1917	1919	...
713	Federal Coals, Ltd.	Lethbridge	3	L. S. 15	36	8	Domestic	1917	...	...
729	Fanning, C.	Donalda	22	L. S. 3	5	42	Domestic	1918	...	...
733	Firth, Albert & Co.	Lethbridge	3	L. S. 4	11	8	Domestic	1918	1919	...
758	Fraser, Alec.	Carmangay	9	L. S. 6	31	14	Domestic	1918	...	...
771	Foothills Collieries, Ltd., The	Lovett	32	E. ½	24	47	Bituminous	1918	...	...
777	Farrar, Henry	Lomond	9	L. S. 9	28	15	Domestic	1918	...	...
806	Finstead, John & Co.	Pendant D'Orielle	5	L. S. 2	21	2	Domestic	1919	...	...
13	Gibbard & Boutwell	Namoo	27	L. S. W. ¾	17	55	Domestic	1898	1901	...
27	Gough & O'Neill	St. Albert	27	Sturgeon River, near	St. Al- bert.	St. Al-	Domestic	1896	1898	...
35	Gillespie Bros.	High River	10	N. E. ¼	6	13	Domestic	1898	1909	...
58	Great Northern Railway	Pincher Creek	2	South of Pincher Creek.		6	Domestic	1901	1906	...
67	Gallagher & Hull	Edmonton	26	Near Edmonton South.			Domestic	1902	1903	...
89	Great West Coal Co., Ltd. The	Edmonton	25	7	53	23	Domestic	1906	1914	...
99	Great West Coal Co., Ltd., The	Edmonton	25	S. E. ¼	7	53	Domestic	1903		...
127	Garneau, Larry, Jr.	Edmonton	26	River Lot 7, Edmonton	Set- tlement.	Set-	Domestic	1907	1908	...
184	Good, Rola B.	Pincher Creek	2	N. W. ¼	11	11	Domestic	1909	1911	...
200	Geddes, Day & Gibb	Medicine Hat	8	2	9	6	Domestic	1909	1914	...
211	Green, H. V.	Halkirk	18	S. E. ¼	18	39	Domestic	1909	1914	...
231	Georgetown Collieries, Ltd.	Canmore	11	N. W. ¼	1	25	Bituminous	1910	1916	...
278	Georgenson, Sebb	Lucky Strike	5	L. S. 9	16	3	Domestic	1911	1911	...

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			Character of Coal	Date of	
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
283	Great West Coal Co., Ltd., The	Edmonton	25	S. W. ¼	6	53	Domestic	1911	1915
289	Gray, Arnou	Gadsby	18	L. S. 10	28	39	Domestic	1911	.....
294	Gibson, George	Grassy Lake	7		25	9	Domestic	1911	1913
297	Ginther, F. M.	Medicine Hat	8	S. W. ¼	12	13	Domestic	1911	1912
336	Gardner, R.	Medicine Hat	8		3	16	Domestic	1912	1912
352	Gainford Collieries, Ltd.	Gainford	30		14	53	Domestic	1912	1914
359	Grant, John A.	Black Diamond	10		21	19	Domestic	1912	1913
377	Gibson, George Scott & Son	Grassy Lake	7	L. S. 4	25	9	Domestic	1913	1913
378	Consolidated with No. 436	Aerial	13	S. E. ¼	28	28	Domestic	1913	1913
421	Goodie, Philip	Groton	5	L. S. 10	10	3	Domestic	1913	1913
436	Great West Coal Co., Ltd.	Aerial	13	S. E. ¼	28	28	Domestic	1914	.....
458	Gilruth, James A.	Fishburn	2	L. S. 8	27	4	Domestic	1914	1914
459	Gardner, Fred	Swallowell	20		15	30	Domestic	1914	1915
478	Giamarino, N.	Delia	17	L. S. 12	13	30	Domestic	1915	1919
487	Giedd, Fred	Dowling Lake	17	L. S. 2	3	33	Domestic	1915	1915
603	Griffiths, Evan	Donalda	22	N. E. ¼	32	41	Domestic	1915	1918
623	Gordon, D. R.	Trochu	19	S. W. ¼	32	33	Domestic	1915	1915
645	Gwilliam, David	Namoo	27	S. W. ¼	6	55	Domestic	1915	1916
687	Gibson, Samuel	Grassy Lake	7	L. S. 7	25	9	Domestic	1916	1918
701	Gillespie & Kirkland	Drumheller	13	L. S. 10	11	29	Domestic	1917	1917
724	Goss Collieries, Ltd.	Round Hill	23	S. W. ¼	14	48	Domestic	1917	1918
728	Green, James	Drumheller	13		32	27	Domestic	1917	1919
747	Gouge, Jesse	Cluny	16		30	31	Domestic	1918	1919
760	Goss, M. T.	Round Hill	23		30	48	Domestic	1918	1918
797	Gutche, Fred	Strathcona	26	S. E. ¼	8	51	Domestic	1918	.....
801	Garrick, John	Drumheller	13	L. S. 3	6	28	Domestic	1919	.....
6	Humberstone, William	Edmonton	26	River Lot 12, Edmonton Settlement.		20	Domestic	1919	1919
							Domestic	1896	1905

LIST OF MINES—Continued.

No. Mine	Operator	Address	Dis- trict No.	Location.			Character of Coal	Date of	
				S.	T.	W.		Open- ing	Aban- don- ment
17	Holloway, R.	Hillcrest	1	Big Island	North Sask.	River	Domestic	1899	1899
40	Hillcrest Collieries, Ltd.	Strathcona	26	N. E. ¼	18	7	3	5	1905
43	Humberstone Coal Co., Ltd., The	Beverly	25	L. S. 15	7	53	23	4	1899
109	Harper Coal Co.	Edmonton	26	River Lot 22, Edmonton Set- ment.					1910
134	Henderson Brothers	Reid Hill	9	N. E. ¼	22	16	21	4	1907
171	Hanna & Moe	Taber	6	S. E. ¼	27	9	16	4	1909
181	Hart, Edward	Taber	6	S. E. ¼	11	10	17	4	1908
189	Hedstrom Brothers	Carbon	21	S. W. ¼	7	29	22	4	1917
209	Head Syndicate, Ltd.	Burnis	1		9	7	4	5	1909
214	Halbert, William	Three Hills	20		22	31	24	4	1913
215	Hyde, Marcus L., Ltd.	Dodds	23	L. S. 11	14	49	18	4	1909
224	Henderson, Samuel	Brunetta	9		29	16	21	4	1910
254	Heighes, George	Lethbridge	3		27	10	21	4	1915
271	Hollender, Carl E.	Milk River	5	L. S. 5	26	2	16	4	1914
272	Hutchison, John S.	Bow Island	7	S. E. ¼	15	9	11	4	1911
274	Halkirk Collieries, Ltd.	Halkirk	18	N. E. ¼	30	38	15	4	1915
329	Heaney, John	Castor	18	N. E. ¼	4	38	14	4	1911
335	Hutchison, W. S.	Drumheller	13		14	29	20	4	1911
345	Consolidated with No. 732	Bow Island	7	L. S. 13	6	8	10	4	1912
366	Holmes, Joseph	Grassy Lake	7	South of Grassy Lake					1918
373	Hedrich, William	Trochu	19	S. E. ¼	20	33	23	4	1912
380	Hallday, George W.	Delia	17	S. E. ¼	28	30	17	4	1913
417	Hallett, Thomas	Castor	18	N. E. ¼	26	37	14	4	1918
423	Halbert, William	Trochu	19	N. E. ¼	22	33	23	4	1913
426	Halbert, William	Trochu	19	N. E. ¼	12	33	23	4	1914
427	Hronek, Benjamin	Halkirk	18	L. S. 7	18	39	15	4	1918
437	Hudson, William H.	Queensdown	9		23	18	21	4	1914
472	Hildahl, Edwin	Morrin	14	L. S. 7	28	31	21	4	1915
477	Hallday, George W.	Delia	17	L. S. 3	28	30	17	4	1917
638	Harrison, Stephen	Lethbridge	3	S. W. ¼	35	8	22	4	1915

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		
				S.	T.	W. M.		Open- ing	Aban- don- ment	Re- open- ing
674	Hannah, G. G.	Lethbridge	3	L. S. 4	16	10	21	1916	1918	....
✓ 694	Hodgson, Joseph	Rowley	14	L. S. 13	12	32	21	1917	....	....
696	Hunter, John T.	Garden Plain	17	L. S. 16	36	33	14	1917	1917	....
✓ 697	Hamilton Coal Co., Ltd.	Wayne	13	L. S. 7	18	28	19	1917	....	....
709	Halbert, David	Sheerness	19	L. S. 5, 12	17	29	12	1917	1918	....
730	Hetherington, Frederick	Carmangay	9	L. S. 13	30	14	21	1918	1918	....
754	Hamilton, W. L.	Pincher Creek	2	L. S. 9	27	6	1	1918	....	....
761	Hamilton, J. K.	Lethbridge	3	L. S. 4	35	8	22	1918	....	....
767	Hedstrom, Charles J.	Carbon	21	L. S. 11	15	29	23	1918	....	....
✓ 776	Hy-Grade Coal Co., of Drumheller, Ltd.	Drumbeller	13	L. S. 4	11	29	20	1918	....	....
778	Hanson, C. H.	Ferry Point	22	S. E. 1/4	7	40	16	1918	....	....
791	Haywood & Alry	Gadsby	18	L. S. 10	36	8	22	1919	....	....
821	Hamilton, John K.	Lethbridge	3	L. S. 10	36	8	22	1919	1919	....
825	Haines, A. E.	Medicine Hat	8	N. W. 1/4	28	12	7	1919	1919	....
837	Hine, Henry	Edmonton South	26	S. W. 1/4	6	51	25	1919	1919	....
807	Hughes, Louis	Donalda	22	L. S. 1	29	41	17	1919	....	....
88	International Coal & Coke Co., Ltd.	Coleman	1	N. 1/2	8	8	4	5 Bituminous	1903	....
111	Irvine, Thomas	Elcan	6	S. E. 1/4	4	10	17	1906	1910	....
114	Independent Coal Co., Ltd., The	Elcan	6	S. E. 1/4	4	10	17	1906	1913	....
138	International Land Dev. Co.	Winnifred	7	19	10	10	9	1907	1907	....
159	Imperial Coal Co.	Taber	6	5	10	17	4	1907	1910	....
✓ 748	Ivey, John	Drumbeller	13	S. 1/2	6	28	20	1918	1918	....
✓ 749	Ives, Harry	Carbon	21	L. S. 15	11	29	23	1918	1918	1919
242	Johnson, John S.	Heatherbrae	22	S. W. 1/4	15	44	19	1910	1916	....
269	James, G. K.	Halkirk	18	N. W. 1/4	18	39	15	1911	1913	....
280	Jasper Park Collieries, Ltd.	Pocalontas	31	L. S. 9	6	49	27	5 Bituminous	1911	....
312	James, C. K.	Gadsby	18	S. E. 1/4	28	39	16	1911	1913	....
371	Jacobson, John	Bow Island	7	L. S. 8	21	12	10	1912	1913	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		Re-opening
				S.	T.	R. M.		Open- ing	Aban- don- ment	
407	Jaynes, Robert	Milk River	5	N. E. ¼	29	2	Domestic	1913	1915	....
402	Jeffrey, James	Maycroft	2	32	10	2	Domestic	1914	1915	....
470	Joberg, A. F.	Delia	17	N. W. ¼	21	30	Domestic	1915	1915	....
482	Consolidated with No. 470	Delia	17	E. ½	21	30	Domestic	1915	....	1919
627	Jackson & Fanning	Donalda	22	L. S. 15	32	41	Domestic	1915	....	1919
642	Jennings, Peter P.	Pendant D'Orielle	5	S. ½ L.S. 5	22	2	Domestic	1916	....	1919
643	Jewell Collieries, Ltd.	Wayne	13	S. E. ¼	7	28	Domestic	1916	....	....
679	Jackson, James & Fry	Donalda	22	L. S. 9	32	41	Domestic	1917	....	....
683	Jasper Park Collieries, Ltd.	Pocahontas	31	L. S. 9	12	49	Bituminous	1917	....	....
686	Jackson, Alfred	Grassy Lake	7	L. S. 1	27	9	Domestic	1917	1917	....
691	Jackson, Alfred	Grassy Lake	7	L. S. 15	23	9	Domestic	1917	....	....
746	Jones, Samuel A.	Drumheller	13	L. S. 16	30	29	Domestic	1918	....	....
809	Jones, William	Bullocksville	19	L. S. 6	33	38	Domestic	1919	....	....
841	Johnson, Chris.	Carbon	21	N. E. ¼	9	22	Domestic	1919	1919	....
842	Jamison & Hausman	Bassano	16	S. W. ¼	34	20	Domestic	1919	....	....
447	James Bros.	Forestburg	22	N. W. ¼	28	40	Domestic	1914	1915	1919
53	Knee Hill Coal Co., Ltd.	Carbon	21	S. W. ¼	14	29	Domestic	1898	....	....
69	Keith & Fulton	Edmonton	25	L. S. 16	7	53	Domestic	1902	....	....
103	Knowlton, G. H.	Carstairs	11	L. S. 14	19	29	Bituminous	1905	1913	....
120	Kunner, William	Long View	10	S. W. ¼	8	18	Domestic	1906	....	....
125	Ketchum Coal Co.	Edmonton	25	N. W. ¼	7	53	Domestic	1906	....	....
194	Knee Hill Coal Co., Ltd.	Three Hills	21	N. W. ¼	4	31	Domestic	1909	1910	....
219	Knowlton, G. H.	Bituna	11	L. S. 13	10	29	Domestic	1910	....	....
277	Kippen, Duncan	Kippenville	5	L. S. 8	35	2	Bituminous	1911	1915	....
315	Kusler, C. L.	Trochu	19	S. E. ¼	14	33	Domestic	1911	1914	....
333	Kovaice, Frank	Granlea	7	S. W. ¼	9	8	Domestic	1912	....	....
399	Koffler, Mike	Prosper	7	S. W. ¼	13	7	Domestic	1913	1916	....
440	Kaye, Herschel	Maycroft	2	N. E. ¼	11	10	Domestic	1914	1916	....
480	Klump, Dan	Delia	17	L. S. 6	23	30	Domestic	1915	1915	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of	
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
397	Kelly Coal Co., Ltd.	Namao	27	S. E. ¼	8	55	Domestic	1913	....
484	Krozier, John	Hutton	16	N. E. ¼	7	23	Domestic	1915	1918
496	Keehn, John	Dowling Lake	17	L. S. 7	3	33	Domestic	1915	....
633	Kent, Johnson & Whitford	Bon Accord	28	N. E. ¼	17	56	Domestic	1916	1918
635	Kurp, Theo	Delburne	19	L. S. 4	7	38	Domestic	1916	1919
790	Kurp, B. C.	Delburne	19	L. S. 4	10	38	Domestic	1918	1919
823	Kidd Stuart	Nordeg	15	L. S. 4	10	38	Domestic	1919	....
839	Keats, J. W.	Standard	16	S. E. ¼	29	24	Domestic	1919	1919
840	Kerrison, Thomas W.	Eyremore	16	S. W. ¼	15	17	Domestic	1919	....
126	Leitch Collieries, Ltd., The	Pasburg	1	S. W. ¼	14	7	Bituminous	1906	1915
131	Larson, Andrew	Travers	6	L. S. 7	4	10	Domestic	1907	1919
185	Long, D. H.	Bow Island	7	L. S. 7	36	11	Domestic	1909	1914
192	Lethbridge, City of	Lethbridge	3	N. E. ¼	36	8	Domestic	1909	....
205	Lindquist, A. A.	Bow Island	7	L. S. 5	22	12	Domestic	1909	1913
309	Laarz, F. W.	Fraserton	17	S. E. ¼	21	28	Domestic	1911	....
319	Lake View Coal Co.	Wabamun	29	L. S. 5	29	52	Domestic	1911	1914
324	Lavenne, Jules	Winnifred	7	L. S. 5	22	12	Domestic	1911	1916
330	Lees, W. R.	Pincher Creek	2	L. S. 7	25	5	Domestic	1911	1918
375	Lohrmann, Chris.	Garden Plain	17	L. S. 7	1	34	Domestic	1912	....
400	Lavenne, Jules	Winnifred	27	E. ½ L. S. 8	21	12	Domestic	1913	1918
419	Lakeside Coals, Ltd.	Wabamun	29	L. S. 15	9	53	Domestic	1913	....
441	Linder, Karl	Halkirk	18	L. S. 5	18	39	Domestic	1914	1918
467	Lancaster & Willan	Camrose	23	L. S. 5	29	46	Domestic	1915	1915
601	Law, George	Round Hill	23	N. E. ¼	10	48	Domestic	1915	....
613	Lindquist & Anderson	Donalda	22	L. S. 7&8	30	41	Domestic	1915	....
676	Lethbridge Coal Co.	Lethbridge	3	L. S. 12	12	9	Domestic	1916	....
677	Lavenne, Jules	Winnifred	7	L. S. 1	21	12	Domestic	1917	1917
698	Lanark Coal Co.	Elcan	6	L. S. 2	4	10	Domestic	1917	1918
706	Lyon, H. E.	Morley	11	L. S. 3	17	26	Bituminous	1917	1919

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		Re-opening
				S.	T.	R. M.		Open- ing	Aban- don- ment	
✓ 740	Lindquist, Victor	Aerial	13	L. S. 11-12	29	28 19 4	Domestic	1918	1918	....
751	Lavenne, Jules	Winnifred	7	L. S. 2	27	12 10 4	Domestic	1918	....	....
789	Lindquist Victor	Donalda	22	L. S. 8	25	41 18 4	Domestic	1918	....	....
808	Lanway, C.	Alix	19	L. S. 10	33	38 23 4	Domestic	1919	....	....
812	Lassefer, Thos. E.	Delburne	19	L. S. 15	2	38 24 4	Domestic	1919	....	....
5	Martin, Robert	Strathcona	26	River Lot 26, Edmonton	Set- tlement.		Domestic	1897	1902	....
12	Martin & King	Strathcona	26	River Lot 26, Edmonton	Set- tlement.		Domestic	1897	1904	....
15	Marsh & Neeb	Strathcona	26	River Lot 18, Edmonton	Set- tlement.		Domestic	1897	1902	....
52	Mays Coal Co.	Edmonton	25	7	53	23 4	Domestic	1897	1902	....
60	Martin, E. D.	Strathcona	26	River Lot 25, Edmonton	Set- tlement.		Domestic	1901	1902	....
74	Milner & Shoeman	Edmonton	25	7	53	23 4	Domestic	1902	1904	....
100	Martin Brothers	Edmonton South	26	20	51	1 5	Domestic	1903	1913	....
124	Marsh, John	Elcan	6	N. ½	4	10 17 4	Domestic	1905	1903	....
140	Marsh, John	Elcan	6	19	9	17 4	Domestic	1906	1910	....
158	Marsh Brothers	Elcan	6	S. E. ¼	4	10 17 4	Domestic	1907	1908	....
175	Marsh John	Taber	6	29	9	17 4	Domestic	1907	1910	....
180	Mills, Jonathan J.	Grassy Lake	7	L. S. 13	23	9 13 4	Domestic	1908	1909	....
266	Murphy, M. T.	Bow Island	33	S. ½	9	12 10 4	Domestic	1911	1911	....
282	Mountain Park Coal Co., Ltd.	Edmonton	33	16	6	30 5	Bituminous	1911	1913	....
292	Morris, John	Pincher Creek	2	S. W. ¼	29	26 21 4	Domestic	1911	1913	....
299	Medloski, Joe	Rosebud	13	S. W. ¼	3	10 11 4	Domestic	1912	1913	....
331	Mitchell, A. E.	Bow Island	7	L. S. 10	9	29 20 4	Domestic	1912	1913	....
367	Midland Collieries, Ltd.	Midlandvale	13	L. S. 14	27	10 21 4	Domestic	1912	1913	....
395	Molloy, Andrew	Picture Butte	3	S. E. ¼	11	39 16 4	Domestic	1913	1918	....
451	Meheitz, Frank	Botha	18				Domestic	1914		....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Opening	Date of	
				S.	T.	R.			Abandonment	Re-opening
466	Moore Clark	Evmore	16	S. W. $\frac{1}{4}$...	15	17	4 Domestic	1915	1915	
489	Murray, John	Grassy Lake	7	L. S. 1 ...	9	10	4 Domestic	1915	1915	
497	Morse, A. T.	Hanna	17	L. S. 15... 32	41	18	4 Domestic	1915	1915	
604	March, Adam	Donalda	22	L. S. 1 ...	28	42	4 Domestic	1915	1915	
615	Martin, Charles F.	Heister	22	S. W. $\frac{1}{4}$...	8	37	4 Domestic	1915	1915	
617	Morland Brothers	Stettler	18	L. S. 16 ...	22	2	4 Domestic	1915	1915	
622	Miner, Albert	Bawlf	22	L. S. 3 ...	7	2	4 Domestic	1915	1915	
649	Moody, James	Pendant D'Oreille	5	L. S. 10 ...	28	27	4 Domestic	1916	1916	
668	May, Frank	Beazer	5	L. S. 4 ...	17	15	4 Domestic	1916	1916	
675	Murray, John N.	Drumbeller	13	L. S. 1 ...	5	42	4 Domestic	1917	1917	
685	Munton, Evan & Brennan	Long Coulee	9	L. S. 15 ...	24	34	4 Domestic	1917	1917	
715	Murland, R. & Sparrow	Pincher Creek	22	L. S. 11 & 14	21	28	4 Domestic	1918	1918	
719	Mitchinson, J.	Donalda	22	L. S. 3 ...	2	28	4 Domestic	1918	1918	
727	Marx, G. W. D.	Huxley	19	L. S. 16 ...	16	18	4 Domestic	1918	1918	
734	Miller, Smith & Miller	Aerial	13	L. S. 1 ...	5	42	4 Domestic	1918	1918	
752	Miller, J. K.	Drumbeller	13	L. S. 15 ...	24	34	4 Domestic	1918	1918	
766	Moonlight Coal Co.	Aerial	13	L. S. 11 & 14	21	28	4 Domestic	1918	1918	
775	Minehead Coal Co.	Coalspur	32	L. S. 3 ...	2	28	4 Domestic	1918	1918	
779	Mosley, Aaron	Pincher Creek	2	L. S. 16 ...	16	28	4 Domestic	1918	1918	
783	Munro, Alex	Rose Lynn	17	S. W. $\frac{1}{4}$...	14	49	4 Domestic	1918	1918	
785	Martin, Sebastian	Forestburg	22	N. W. $\frac{1}{4}$...	17	6	4 Domestic	1918	1918	
802	Mutz & Scott	Blairmore	1	L. S. 13 ...	27	28	4 Domestic	1918	1918	
805	Murphy, Losie & Lindquist	Donalda	22	L. S. 5 ...	33	40	4 Domestic	1918	1918	
826	Miller, Wm. Oscar	Del Bonita	5	E. $\frac{1}{2}$...	34	7	4 Domestic	1919	1919	
618	Monsey, Merle S.	Foreman	18	L. S. 8 ...	25	41	4 Domestic	1919	1919	
30	McPherson, A. D.	Black Diamond	10	L. S. 13 ...	28	1	4 Domestic	1915	1915	

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			Character of Coal	Open- ing	Date of	
				S.	T.	R. M.			Aban- don- ment	Re- open- ing
49	McPeak, P. J.	Edmonton	26	112th Ave. and	76th St.	Ed.	Domestic	1905		
119	MacIntosh, C. G.	High River	10	16	18	2	Domestic	1906	1908	
149	McDevitt, J. J.	Tofield	24	S. W. ¼	24	50 19	Domestic	1907		
204	McGillivray Creek Coal & Coke Co., Ltd.	Coleman	1	17	8	4	Bituminous	1909		
217	McWilliams, Alex	Lethbridge	3	8	10	22	Domestic	1909	1911	
222	McFarlane, William	Pincher Creek	2	27	6	2	Domestic	1910	1913	
246	McCormack, A. D.	Castor	18	L. S. 14	34	37 14	Domestic	1910	1918	
253	McKinnon, A. D.	Pincher Creek	2	S.	36	5	Domestic	1910	1915	
275	McCormack, A. D.	Castor	18	S. W. ¼	3	38 14	Domestic	1911		
279	McKay, Daniel G.	Milk River	5	L. S. 3	1	3 16	Domestic	1911	1918	1919
304	McLean Hugh D.	Castor	18	S. E. ¼	34	37 14	Domestic	1911		
334	McAlister, Robert	Suffield	8	29	13	10	Domestic	1912	1914	
343	McGuire, A. J.	Lethbridge	3	E. ½	25	8	Domestic	1912	1913	
385	McGuire, James S.	Trochu	19	S. E. ¼	16	33 23	Domestic	1913	1913	
398	McCafferty, Thomas	Fertility	17	18	33	13	Domestic	1913	1915	
405	McIntyre, William H.	Magrath	4	L. S. 3	24	3	Domestic	1913		
408	McGuire, A. J.	Crow's Nest	1	L. S. 4	5	29 14	Domestic	1913	1913	
415	McRae Bros.	Parr	17	L. S. 4	5	29 14	Domestic	1913		
418	Consolidated with No. 275	Castor	18	S. E. ¼	3	4	Domestic	1913		
455	McPherson, Peter	Fishburn	2	L. S. 12	36	35	Domestic	1914	1917	
468	McFadden & Farnell	Big Valley	14	L. S. 2	6	30 13	Domestic	1915	1916	
612	McLean, Charles A.	Wildunn	17	L. S. 1	6	29 14	Domestic	1915		
626	McRae, W. A.	Parr	17	L. S. 6	1	3 12	Domestic	1915		
644	McAlpine, Alex. H.	Kippenville	5	N. E. ¼	33	38	Domestic	1916		
664	McTaggart & Morton	Erskine	18	E. ½ L.S. 4	9	15	Domestic	1916	1917	
714	McDonald, William	Champion	9	River Lot 2, 121st	Edmonton.		Domestic	1917	1917	
773	McGuire Collieries, Ltd.	Edmonton	26	L. S. 11	25	51	Domestic			
29	Nimko, Kos.	Edmonton South	26	L. S. 11	25	51	Domestic	1897		

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Opening	Date of	
				S.	T.	W. M.			Abandonment	Re-opening
55	Noble, Henry	Lethbridge	3	L. S. 4	18	7	21	4	1902	1919
57	Nash, Thomas	Pincher Creek	2	S. 1/2	34	5	29	4	1902	1913
101	Namao Collieries, Ltd.	Edmonton	27	N. W. 1/4	9	55	24	4	1905	.....
141	Namao Coal Co.	Namao	27	W. 1/2	3	55	24	4	1907	1909
174	North American Collieries, Ltd.	Coalhurst	3	L. S. 2	21	9	22	4	1908	.....
199	North American Collieries, Ltd.	Edmonton	2	L. S. 9	31	6	2	5	1909	1915
203	New Barnes Coal Mine Co.	Lethbridge	3	L. S. 9	31	9	21	4	1909	.....
227	North American Collieries, Ltd.	Evansburg	30	S. E. 1/4	30	53	7	5	1910	.....
257	Noble, William G.	Hutton	16	L. S. 6	7	23	14	4	1910	.....
267	North American Collieries, Ltd.	St. Albert	26	N. W. 1/4	28	53	25	4	1911	1916
310	North Alberta Coal Syndicate	Pocahontas	31	N. W. 1/4	29	49	26	5	1911	1913
317	Newcastle Coal Co., Ltd.	Drumheller	13	S. E. 1/4	9	29	20	4	1911	.....
327	Nicol & Bradshaw	Trochu	19	S. W. 1/4	5	34	22	4	1911	.....
348	Neisner, John	Munson	13	S. W. 1/4	23	29	20	4	1912	1913
350	Northern Construction Co.	Winnipeg	15	..	..	39	10	5	1912	1916
357	Nash, Thomas	Pincher Creek	2	27	4	28	4	4	1912	1914
376	Nelson & Johnson	Trochu	19	30	34	21	4	4	1912	1914
383	North Kootenay Pass Coal Co.	Frank	1	29	7	4	4	5	1913	.....
402	North American Collieries, Ltd.	Nacmne	13	Bet Sect. 7 and 8	29	20	20	4	1913	.....
412	New Era Coal Co., Ltd.	Wahamun	29	L. S. 10	18	3	7	4	1913	1915
692	Natras, D. W.	Orion	13	L. S. 9	3	29	20	4	1917	1918
816	Newcastle Junior Mining Co., Ltd.	Drumheller	5	L. S. 4	5	13	6	4	1919	.....
37	Consolidated with No. 772	Medicine Hat	8	L. S. 2	7	7	21	4	1899	1919
56	Oliver, Benjamin	Magrath	4	S. W. 1/4	17	53	23	4	1909	1918
91	Ottewell, R. P.	Clover Bar	25	N. W. 1/4	10	5	1	5	1904	.....
295	Owen, J. H.	Pincher Creek	2	L. S. 4	17	7	21	4	1911	.....
409	Oliver, Benjamin	Magrath	4	N. E. 1/4	23	48	21	5	1913	.....
648	Oliphant-Munson Collieries, Ltd.	Basing	32	..	..	..	..	..	1916	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Opening	Abandonment	Date of
				S.	T.	R.	W. M.			
670	Olson, Emil	Hanna	17	S. W. ¼	19	29	14	4 Domestic	1916	1917
769	Oliphant-Munson Collieries, Ltd.	Oliphant Mines	32	L. S. 2	35	47	20	5 Bituminous	1918	.....
772	Oliphant, Joseph H. & John	Medicine Hat	8	S. W. ¼	5	13	6	4 Domestic	1918	.....
814	Oliver, Lewis	Foremost	7	L. S. 3	28	6	11	4 Domestic	1919	1919
818	Ogilvie & Large	Twining	20	L. S. 2	11	31	24	4 Domestic	1919	1919
824	Ogilvie & Large	Ardley	19	E. ½	20	38	23	4 Domestic	1919	.....
139	Patterson, Thomas	Elean	6	S. E. ¼	26	9	18	4 Domestic	1907	.....
145	Pincher Creek Coal Mining Co.	Pincher Creek	2	17	6	30	4	4 Domestic	1907	1913
161	Perry, James	Lethbridge	3	2	7	22	4	4 Domestic	1907	1914
197	Consolidated with No. 226 (Prairie Coal)									
210	Premier Coal & Coke Co., Ltd.	Eyremore	16	9	17	17	4	4 Domestic	1909	.....
261	Paulson, P. A.	Frank	1	5	4	5	4	5 Bituminous	1909	1914
318	Poxon, John	Coleman	1	9	7	4	5	5 Bituminous	1910	1913
369	Petrie, J. H.	Carbon	21	L. S. 9	29	30	22	4 Domestic	1911	1919
392	Peace River Collieries, Ltd.	Strathcona	26	28	51	25	4	4 Domestic	1912	.....
394	Palmer Coal Co.	Peace River	31	1	60	14	5	5 Bituminous	1913	1913
411	Pyrah, Samuel	Burmis	1	25 miles S. W. of Burmis.	8	21	4	4 Domestic	1913	.....
413	Page & Dayton	Magrath	4	N. W. ¼	29	4	20	4 Domestic	1913	1914
439	Pepik, Dan	Raymond	4	48	27	4	4	4 Domestic	1913	1915
444	Premier Coal Co., Ltd.	Berford	26	4	29	20	4	4 Domestic	1913	1914
448	Payne, Philip T.	Drumheller	13	L. S. 3	10	29	20	4 Domestic	1914	.....
607	Pollitt, James	Calgary	20	S. ½ L. S. 11	11	11	4	4 Domestic	1914	.....
650	Pleming & Regal	Bow Island	7	L. S. 7	36	11	17	4 Domestic	1915	1916
662	Pattison, Charles H.	Donalda	22	L. S. 8	30	41	23	4 Domestic	1915	1916
680	Peruzzo Ermino	Carbon	21	11	29	23	4	4 Domestic	1916	.....
682	Pickering, William H.	Reazer	5	L. S. 16	6	2	26	4 Domestic	1916	1917
681	Parge, Charles H.	Donalda	22	L. S. 5	29	41	17	4 Domestic	1917	.....
691		Twining	20	N. E. ¼	1	31	24	4 Domestic	1917	1917

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
✓ 710	Peters & Kinchin	Trochu	19	L. S. 16	14	33	23	4	Domestic	1917
✓ 723	Pattison, Robert	Verdant Valley	13	L. S. 13	35	28	18	4	Domestic	1917
742	Pederson, Laurtez	Donalda	22	L. S. 13	16	42	17	4	Domestic	1918
750	Pearson, George Wesley	Lethbridge	3	L. S. 13	27	10	21	4	Domestic	1918
759	Patterson, A. C.	Commerce	3	L. S. 2	17	10	21	4	Domestic	1918
794	Penney, Fred	Etzikom	7	S. W. ¼	10	7	9	4	Domestic	1918
803	Pacey, John C.	Manyberries	5	L. S. 7	24	3	7	4	Domestic	1919
18	Ramsay & George	Edmonton South	26	River Lot 23, Edmonton	Settlement.				Domestic	1897
39	Reliance Coal Mining Co.	Taber	6	3	9	16	4		Domestic	1907
51	Ransome, M. E.	Edmonton	25	River Lot 42, Edmonton	Settlement.				Domestic	1909
75	Rech, Charles	Nanao	27	L. S. 4	16	55	24	4	Domestic	1901
82	Regal Collieries, Ltd.	Taber	6	8	10	16	4		Domestic	1903
92	Royal Collieries, Ltd.	Royal View	3	S. E. ¼	31	9	21	4	Domestic	1907
128	Rosedale Coal Co.	Edmonton	26	River Lot 28, Edmonton	Settlement.				Domestic	1904
154	Raisbeck, Luke	Grassy Lake	7	S. ½	9	10	13	4	Domestic	1907
156	Rupert's Land Coal Co.	Oliver	25	11	54	24		4	Domestic	1911
162	Reece, William	Macraeth	4	S. W. ¼	1	7	22	4	Domestic	1907
165	Redcliff Brick & Coal Co., Ltd.	Redcliff	8	L. S. 14	5	13	6	4	Domestic	1907
169	Russell, John	Mitford	11	13	26	5		5	Bituminous	1908
170	Rock Springs Coal & Brick Co., Ltd.	Elcan	6	L. S. 14	3	10	17	4	Domestic	1908
172	Reynolds, H.	Elcan	6		4	10	17	4	Domestic	1908
182	Raymond Coal Co.	Edmonton	25	27	53	23		4	Domestic	1908
212	Ruscoe, Richard	Halkirk	18	N. W. ¼	8	39	15	4	Domestic	1909
228	Regal Collieries, Ltd.	Taber	6	L. S. 8	19	10	16	4	Domestic	1910
250	Round Hill Collieries, Ltd.	Round Hill	23	S. E. ¼	30	48	18	4	Domestic	1910
281	Russell, J.	Cremona	11	L. S. 13	30	29	5	5	Bituminous	1911

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.		Character of Coal	Date of		Re-open- ing
				S.	T.		Open- ing	Aban- ment	
✓ 301	Robinson, U. G.	Big Valley	14	Near Big Valley.		Domestic	1911	1914	....
320	Rider Bros.	Gadsby	18	N. W. ¼ 31	40	Domestic	1911	1913	....
332	Redcliff Clay Products Co., Ltd.	Redcliff	8	N. W. ¼ 9	13	Shale	1912	1914	....
344	Raber, Elsworth	Winnifred	7	L. S. 13 22	12	Domestic	1912	1914	....
346	Rosedale Coal & Clay Products, Ltd.	Rosedale	13	L. S. 14 28	19	Domestic	1912	....	....
✓ 347	Rose Deer Coal Mining Co., Ltd.	Wayne	13	L. S. 13 7	28	Domestic	1912	....	....
353	Roberts, William	Foremost	7	L. S. 13 36	6	Domestic	1912	1916	....
363	Rathburn, L. F.	Long View	10		8	Domestic	1912	1913	....
431	Rambo, M. C.	Edson	30	N. W. ¼ 2	53	Domestic	1914	1914	....
446	Ruffell, Alfred	Lethbridge	3	S. E. ¼ 31	9	Domestic	1914	1914	....
450	Robinson, William	Forestburg	22	L. S. 8 32	40	Domestic	1914	1915	....
465	Raisbeck, Luke	Grassy Lake	7	S. E. ¼ 9	10	Domestic	1915	1917	....
✓ 469	Ross, R. A.	Scollard	14	L. S. 9 34	34	Domestic	1915	1917	....
✓ 479	Royal, Edward	Craigmyle	17	S. W. ¼ 12	31	Domestic	1915	1915	....
493	Consolidated with No. 325 (E. Wimmer)	Castor	18		4	Domestic	1915	....	....
606	Riley, John W.	Lundbreck	2	N. W. ¼ 26	7	Domestic	1915	1917	....
608	Richmond, Andrew	Erskine	18	L. S. 15 10	38	Domestic	1915	1916	....
653	Ray, George Alex	Halcourt	34	S. E. ¼ 25	70	Domestic	1916	1917	....
✓ 671	Reed, Archer M.	Ghost Pine Creek	21	S. W. ¼ 28	30	Domestic	1916	1917	....
718	Rataushk, Fred	Eagle Butte	8	N. E. ¼ 8	8	Domestic	1917	....	....
720	Rudolph Brothers	Edmonton South	26	L. S. 13 5	51	Domestic	1917	....	....
732	Redden, Levi P.	Maleb	7	L. S. 13 6	8	Domestic	1918	....	....
738	Rollingson, G. W.	Lethbridge	3	L. S. 7 11	8	Domestic	1918	....	....
✓ 743	Rawhusyk, Pete	Beynon	13	L. S. 1 30	27	Domestic	1918	1918	....
763	Riverside Coal Co.	Aerial	13	S. E. ¼ 15	28	Domestic	1918	....	....
765	Redcliff Brick & Coal Co., Ltd.	Redcliff	8	L. S. 14 5	13	Domestic	1918	....	....
810	Russell, Robert	Alix	19		12	Domestic	1919	....	....
827	Rollingson, John	Magrath	4	L. S. 1 7	7	Domestic	1919	....	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.		Character of Coal	Date of		Re-open- ing
				S.	T.		Open- ing	Aban- don- ment	
831	Russell, Duncan & Hood	Alix	19	L. S. 15	35	38	23	1919	.....
835	Rowland, A. E.	Delburne	19	S. E. ¼	10	38	24	1919	.....
28	Stewart & Campbell	Namoo	27	N. E. ¼	8	55	24	1897	.....
47	Strathcona Coal Co.	Edmonton South	26	River Lot 9, Edmont- on settlement.				1913	.....
61	Scott, Fred	Medicine Hat	8	S. E. ¼	6	13	6	1905	.....
110	Sutherland, Murdoch	Namoo	27	S. E. ¼	4	55	24	1906	.....
135	Smith, T. Edwin	Garmangay	9	L. S. 2	36	14	22	1906	.....
144	Scott & MacLaine	Pincher Creek	2	W. ½	20	5	1	1906	.....
157	Southern Alberta Coal Co., Ltd., The	Taber	6	S. E. ¼	8	10	17	1907	.....
163	Shirts, James E.	Taber	6	S. E. ¼	30	10	16	1908	.....
183	Consolidated with No. 244	Camrose	23	S. E. ¼	28	9	21	1909	.....
195	Standard Lethbridge Collieries, Ltd.	Lethbridge	3	S. E. ¼	8	55	24	1909	.....
196	Speers, H.	Namoo	27	N. E. ¼	18	10	16	1909	.....
202	Superior Coal Co., Ltd., The	Elean	6	N. W. ¼	36	11	11	1909	.....
238	Simpson, M.	Bow Island	7	L. S. 10	35	12	10	1910	.....
239	Savage, George W.	Winnifred	19	S. W. ¼	17	38	23	1910	.....
255	Straub, F. A.	Alix	23	S. W. ¼	18	48	19	1910	.....
241	Spicer Coal Co., Ltd., The	Dinant	23	L. S. 1	33	46	20	1910	.....
244	Stony Creek Collieries, Ltd.	Camrose	23	L. S. 1	21	28	14	1910	.....
258	Sinclair, A. C.	Rose Lynn	17	L. S. 2	19	29	12	1911	.....
262	Sheerness Coal Co.	Sheerness	17	N. E. ¼	14	53	4	1911	.....
263	Security Coal Mines Co., Ltd.	Wabamun	29	N. E. ¼	29	14	21	1911	.....
264	Stavely Coal Mining Co.	Long Coulee	9	S. E. ¼	22	12	10	1911	.....
265	Simanton, W. H.	Winnifred	7	S. E. ¼	18	39	15	1911	.....
268	Strader & Green	Halkirk	18	S. E. ¼	18	39	15	1911	.....
276	Slockett, Geo.	Diamond City	3	L. S. 13	9	10	21	1911	.....
286	Square Deal Mercantile Co.	Big Valley	14	S. W. ¼	26	35	20	1913	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.		W. M.	Character of Coal	Open- ing	Date of	
				S.	T.				Aban- don- ment	Re- open- ing
307	Sanderson, William John	Long Coulee	9	N. W. ¼	8	15	22	1911	1913	.....
311	Seale, James	Kimball	5	22	1	25	4	1911	1913	.....
353	Stanton, George F.	Munson	13	29	29	20	4	1912	1914	.....
358	Sailsbury, Robert A.	Winnifred	7	L. S. 12	22	12	10	1912	.....	.....
370	Schmidt, Stephen	Prosper	7	L. S. 16	30	7	8	1912	1918	.....
388	Saunders Creek Domestic & Steam Coal Co.									
389	Smith, Frank	Saunders	15	N. E. ¼	24	40	13	1913	.....	.....
422	Sterling Coal Co., Ltd.	Namoo	27	L. S. 1	17	55	24	1913	.....	.....
461	Smith, T. Edwin	Drumheller	13	L. S. 5	9	29	20	1914	.....	.....
491	Steen, Herman	Yetwood	9	L. S. 9	28	15	21	1914	1917	.....
494	Smithson, Irving	Parr	17	L. S. 16	18	29	14	1915	.....	.....
498	Stulberg, Gus	Halkirk	18	L. S. 5	20	37	15	1915	1916	.....
609	Smith, George	Halkirk	18	N. E. ¼	6	37	15	1915	.....	.....
610	Strilszyk, Louis	Donalda	22	L. S. 5	22	42	17	1915	.....	.....
625	Sickstrum, O. R.	Round Hill	23	L. S. 8	10	48	18	1915	1918	.....
636	Stewart, Robert	Meeting Creek	22	L. S. 14	14	43	20	1915	1917	.....
639	Spencer, Fred	Delia	17	S. W. ¼	6	30	17	1916	1916	.....
663	Smith, T. Edwin	Big Valley	14	L. S. 12	36	35	20	1916	1918	.....
666	Simmons, Efner, W.	Long Coulee	9	L. S. 3	17	15	21	1916	1917	.....
673	Strader, Lawson	Hastings Coulee	22	N. E. ¼	2	41	16	1916	1916	.....
695	Scranton Coal Co., Ltd.	Halkirk	18	N. E. ¼	18	39	15	1916	.....	.....
717	Shaw, Daniel	Drumheller	13	L. S. 5	10	29	20	1917	.....	.....
741	Sugars, Jackson & Ring	Castor	18	L. S. 2	34	37	14	1917	.....	.....
		Edmonton	26	120th Ave. & 130th St., Ed- monton.						
753	Strickland, Thomas	Edmonton	27	L. S. 14	8	55	24	1918	1918	.....
756	Saunders Alberta Collieries, Ltd.	Saunders	15	L. S. 16	23	40	13	1918	1919	.....
762	Stevenson, Archibald & Co.	Retlaw	6	L. S. 14	7	11	16	1918	1918	.....
768	Shannon & Hedberg	Carbon	21	L. S. 1	14	29	23	1918	.....	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of	
				S.	T.	R. M.		Open- ing	Aban- don- ment	Re- open- ing
770	Shamrock Coal Co., Ltd.	Aerial	13	L. S. 10	20	28	19	1918	.....
784	Strong & Porter	Rose Lynn	17	L. S. 1	34	28	13	1918	.....
795	Shaw & Son, James E.	Arduley	19	L. S. 2	33	38	23	1919	.....
796	Sunbeam Collieries, Ltd.	Drumheller	13	L. S. 2, 8	7	1	29	1919	.....
798	Stelter, E.	Strathcona	26	L. S. 8	35	50	26	1919	.....
800	Steegstra & Rolison	Comrey	5	L. S. 9	4	2	6	1919	.....
813	Stewart, Robert	Aerial	13	N. W. ¼	11	28	19	1919	.....
815	Sutton, Henry	Rosebud Creek	13	L. S. 12	33	27	21	1919	.....
832	Solomon Creek Coal Co.	Brule	31	L. S. 12	33	27	21	1919	.....
368	Steegstra, Thomas	Comrey	5	L. S. 12	33	27	21	1919	.....
16	Talbot, Mr.	Namoo	27	S. E. ¼	17	55	24	1912	.....
104	Trusts & Guarantee Co., Ltd.	Lethbridge	3	L. S. 3	6	10	21	1904	.....
112	Three Hills Coal & Dev. Co., Ltd.	Three Hills	20	S. W. ¼	35	31	24	1905	.....
113	Trentham, Albert	Three Hills	20	L. S. 16	26	31	24	1906	.....
136	Therriault, Henry	Champion	9	L. S. 7	8	15	22	1906	.....
150	Consolidated with No. 252	Tofield	24	L. S. 7	8	15	22	1907	.....
160	Thorne, John	High River	10	River Lot 17, Edmonton	9	18	2	1907	.....
177	Twin City Coal Co., Ltd.	Edmonton South	26	L. S. 13	9	10	21	1908	.....
225	Thomas, John	Diamond City	3	L. S. 9	16	42	17	1910	.....
249	Terris, Chapen	Heisler	22	L. S. 9	16	42	17	1910	.....
252	Tofield Coal Co., Ltd.	Tofield	24	N. ½	26	50	19	1910	.....
313	Tonge & Groton	Pincher Creek	2	L. S. 1	16	6	30	1910	.....
322	Trochu Coal Co., The	Trochu	19	S. E. ¼	34	32	23	1911	.....
382	Thorpe, George W.	Windy Ridge	7	L. S. 4	16	7	9	1913	.....
481	Toth, John	Warner	5	L. S. 4	16	4	16	1914	.....
495	Thompson, Ole	Lousana	19	L. S. 16	12	36	22	1915	.....
616	Tate, John	Ferry Point	22	S. E. ¼	18	43	17	1915	.....
637	Trentham, William T.	Three Hills	20	L. S. 15	22	31	24	1916	.....
652	Taft, John B.	Grande Prairie	34	N. E. ¼	35	70	7	1916	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	District No.	Location.			Character of Coal	Date of		Re-open- ing
				S.	T.	R. M.		Open- ing	Aban- don- ment	
731	Tredway Co., D.	Bullockville	19	L. S. 16 .. 33	38	23	Domestic ...	1918	....	....
✓745	Thomas, Joseph D.	Aerial	13	N. W. ¼ .. 18	28	19	Domestic ...	1918	1918	....
✓817	Trentham, H.	Three Hills	21	L. S. 2 .. 6	31	21	Domestic ...	1919	....	....
488	Unsworth, Robert	Garden Plain	17	L. S. 14 .. 6	33	13	Domestic ...	1915	1918	1919
711	United Coal Co.	Elean	6	L. S. 8 .. 4	10	17	Domestic ...	1917	....	....
788	Urwin, Wm.	Lethbridge	3	L. S. 1 .. 18	7	21	Domestic ...	1918	1918	....
341	Vittario, Corraini	Prosper	34	L. S. 9 .. 5	8	8	Domestic ...	1912	....	....
651	Voz, Joseph	Grande Prairie	5	L. S. 14 .. 35	70	7	Domestic ...	1916	1918	....
658	Van Dorn, Edward	Boundary Creek	13	L. S. 1 .. 15	1	26	Domestic ...	1916	....	....
✓782	Van-Ribbon, R. M.	Bevnon	29	L. S. 14 .. 31	27	20	Domestic ...	1918	....	....
830	Van-de-Ryse & J. Beekart	Lake Isle	1	L. S. 2 .. 34	53	6	Domestic ...	1919	....	....
64	West Canadian Collieries, Ltd.	Blairmore	2	L. S. 10 .. 20	7	3	Bituminous	1902	1913	....
77	Welsh, William	Lundbreck	1	L. S. 10 .. 20	7	3	Bituminous	1903	1913	....
887	West Canadian Collieries, Ltd.	Bellevue	26	West of Leduc.	31	24	Domestic ...	1904	1905	....
102	Wilson, John	Leduc	26	L. S. 13 .. 22	31	24	Domestic ...	1906	1915	....
✓116	Watson, George	Three Hills	26	L. S. 13 .. 22	31	24	Domestic ...	1906	1907	....
122	Wetaskiwin Coal Co.	Strathcona	20	L. S. 13 .. 22	31	24	Domestic ...	1907	1915	....
✓142	Watson, George	Three Hills	26	River Lot 31, Edmonton	Set.	....	Domestic ...	1907	1915	....
148	Western Coal, Ltd.	Edmonton	26	Edmonton	Set.	....	Domestic ...	1907	1915	....
179	Walker, Leo J.	Milk River	5	L. S. 2 .. 6	3	15	Domestic ...	1908	....	....
186	Walwork, James	Bow Island	7	S. W. ¼ .. 36	11	11	Domestic ...	1909	1912	....
193	West Canadian Collieries, Ltd.	Blairmore	1	S. E. ¼ .. 35	7	4	Bituminous	1909	....	....
198	Watkins, Watkin E.	Champion	9	L. S. 13 .. 4	16	23	Domestic ...	1909	1918	....
201	Watkins, James M.	Taber	6	L. S. 4 .. 18	10	16	Domestic ...	1909	....	....
226	Westgate, C. R.	Eyremore	16	S. E. ¼ .. 16	17	17	Domestic ...	1910	....	....
243	Washkoski, Michael S.	Castor	18	S. E. ¼ .. 26	37	14	Domestic ...	1910	1916	....
251	Wisla, Albert	Heisler	22	N. E. ¼ .. 28	42	17	Domestic ...	1910	....	....
291	Wagner, Joseph	Gadsby	18	S. W. ¼ .. 28	39	16	Domestic ...	1911	1916	....

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			W. M.	Character of Coal	Date of		Re- open- ing
				S.	T.	R.			Open- ing	Aban- don- ment	
303	Watson, George	Three Hills	20	L. S. 11	22	31	4	Domestic	1911	.....	.....
308	Wukusick, Louis	Groton	5	L. S. 7	10	3	4	Domestic	1911	.....	.....
314	Walsh, William R.	Ardley	19	S. E. ¼	29	38	4	Domestic	1911	1919	.....
354	Wilson, J.	Delia	17	N. W. ¼	21	30	4	Domestic	1912	.....	.....
361	Woolings, Joseph	Priddis	10	N. W. ¼	7	22	5	Domestic	1912	1918	.....
396	West Canadian Collieries, Ltd.	Blairmore	1	L. S. 10	2	8	4	Bituminous	1913	.....	.....
428	Wilcox, Fiss & Co.	Namoo	27	N. E. ¼	8	55	4	Domestic	1914	1915	.....
430	Weaver, Hugh	Edberg	22	.....	18	44	4	Domestic	1914	1915	.....
442	Willisroft, W. & G.	Namoo	27	S. E. ¼	3	55	4	Domestic	1914	1915	.....
471	Wooden, Clyde M.	Scollard	14	L. S. 15	18	34	4	Domestic	1915	.....	.....
445	Wilson, Charles S.	Twining	20	L. S. 6	14	31	4	Domestic	1914	.....	1919
400	Wright Bros.	Garden Plain	17	L. S. 14	18	33	4	Domestic	1915	1916	.....
624	Williams, C.	Priddis	10	L. S. ½	4	22	3	Domestic	1915	.....	.....
630	Consolidated with No. 243	Castor	13	S. E. ¼	7	28	4	Domestic	1916	.....	.....
640	Western Commercial Co., Ltd.	Wayne	13	L. S. 14	24	70	6	Domestic	1916	1917	.....
654	Waldo, Walter H.	Halcourt	34	L. S. 13	10	29	4	Domestic	1917	.....	.....
678	Western Gem Mining Co., Ltd.	Drumbeller	13	L. S. 4	6	51	4	Domestic	1917	1918	.....
682	Wedman, Gottlieb	Strathcona	26	.....	.....	.....	.....	Domestic	1917	.....	.....
705	Wright, George	Garden Plain	17	W. ½ L. S.	10	18	4	Domestic	1917	1919	.....
721	Worthington & Cunningham	Edmonton South	26	L. S. 10	29	51	4	Domestic	1917	1918	.....
737	Wayne Coal Co., Ltd.	Wayne	13	L. S. 6	19	28	4	Domestic	1918	1919	.....
787	Walsh, Wm. R.	Ardley	19	L. S. 12	21	38	4	Domestic	1918	.....	.....
793	Wiel, Albert	Heister	22	S. E. ¼	3	43	4	Domestic	1918	.....	.....
822	Willis, Walter	Champion	9	L. S. 4	24	16	4	Domestic	1919	1919	.....
834	Wilson, Frank L.	Rosalind	22	L. S. 14	4	37	4	Domestic	1919	.....	.....
836	Whitelaw, Thomas	Lethbridge	3	L. S. 3	36	8	4	Domestic	1919	.....	.....
838	Whittlesea, Fred	Suffield	8	.....	28	12	4	Domestic	1919	.....	.....
220	Yellowhead Coal Co.	Coalspur	32	.....	6	49	5	Bituminous	1910	.....	.....

LIST OF MINES—Continued.

Mine No.	Operator	Address	Dis- trict No.	Location.			W.	R.	M.	of Coal Character	Date of		Re- open- ing
				S.	T.	S.					Open- ing	Aban- don- ment	
328	Yard Brothers Coal Co.	Huxley	19	S. W. $\frac{1}{4}$...	13	34	22	4	Domestic	1911	1911	1916	.....
337	Yard, George C.	Trochu	19	S. W. $\frac{1}{4}$...	10	34	22	4	Domestic	1911	1911	1916	.....
646	Young, Charles H.	Garden Plain	17	L. S. 1...	1	34	14	4	Domestic	1916	1916	1918	.....
661	Yard Brothers Coal Co.	Huxley	19	L. S. 4...	10	34	22	4	Domestic	1916	1916	1918	.....
333	Consolidated with No. 403	Munson	13	L. S. 7...	22	29	20	4	Domestic	1913	1913	1916	.....
403	Zarth & Embury	Munson	13	L. S. 7...	22	29	20	4	Domestic	1913	1913	1916	.....
611	Zehner, J. L.	Hianna	17	S. W. $\frac{1}{4}$...	29	32	13	4	Domestic	1915	1915	.....	.....

BOARD OF EXAMINERS

The constitution of the board during 1919 was as follows:

As representing:

- (a) The Mine Inspectorate:
John T. Stirling, Chief Inspector of Mines.
- (b) Managers:
Messrs. Robert Livingstone and Francis Aspinall.
- (c) Miners:
Messrs. Evan Morgan and Alexander McLeod.

Examinations were held during the year as follows:

For First and Second Class Certificates on May 7, 8 and 9, at Blairmore, Lethbridge, Calgary, Edmonton, Nordegg and Mountain Park.

For Third Class Certificates at Edmonton on January 1 and April 7; Brule Mines, April 9; Mountain Park, April 12; Oliphant Mines, April 14; Drumheller, April 22; Lethbridge, April 29; Blairmore, May 1 and 2; Nordegg, May 10; Calgary, May 15 and October 20.

For Mine Surveyor Certificates on May 10, Blairmore, Calgary, Lethbridge and Nordegg.

Twenty-five candidates presented themselves for examination for First Class Certificates, nine of whom were successful; fifty-nine candidates applied for examination for Second Class Certificates, of whom thirty-nine were successful; sixty-three candidates applied for examination for Third Class Certificates, of whom fifty-five were successful, and twelve applied for Mine Surveyors' Certificates, of whom five were successful.

During the year there were granted one hundred and ninety-three Provisional Certificates authorizing the holders of these Certificates to act as overmen until they had an opportunity of obtaining final Certificates by examination.

List of Names of Holders of First Class Certificates issued by the Government of the Province of Alberta during 1919.

NAME	ADDRESS	CERT. No.	DATE ISSUED
Brown, Thomas	Edmonton	42	5- 9-19
Cranston, Michael	Edmonton	35	2- 7-19
Emmerson, Joseph, (dupli- cate)	Canmore	41	25- 8-19
Foster, William	Edmonton	40	12- 8-19
France, Thomas	Nordegg	44	8-10-19
Heeley, William G.	Edmonton	36	3- 7-19
Hetherington, William B.	Calgary	38	9- 7-19
McIntyre, John J.	Rosedale	39	25- 7-19
McGuckie, Thomas M.	Calgary	43	1-10-19
Watson, Ronald H.	Mountain Park	37	3- 7-19
Wilkinson, George	Victoria, B. C.	45	21-11-19

List of Names of Holders of Second Class Certificates issued by the Government of the Province of Alberta during 1919.

NAME	ADDRESS	CERT. No.	DATE ISSUED
Ashman, Alfred W.	Calgary	88	2- 7-19
Adlam, William	Hillcrest	107	15- 7-19
Armstrong, A.	Nordegg	110	16- 7-19
Brown, J. F.	Edmonton	84	28- 6-19
Ball, Benjamin	Michel, B. C.	101	8- 7-19
Badham, Thomas	Coleman	104	15- 7-19
Bainbridge, Joseph	Medicine Hat	112	5- 8-19
Cartwright, Charles E.	Lundbreck	85	2- 7-19
Clarkstone, W. W.	Fernie, B. C.	93	3- 7-19
Caufield, J.	Coal Creek, B. C.	105	15- 7-19
Carr, Thomas	Pocahontas	117	1-10-19
Duncan, Ninian S.	Wayne	100	8- 7-19
Embree, Merton B.	Evansburg	98	3- 7-19
Fyvie, James	Drumheller	109	16- 7-19
Givens, John	Pocahontas	99	8- 7-19
Hutchison, P.	Bankhead	102	10- 7-19
Hedges, Richard	Beverly	111	18- 7-19
Jones, D.	Coalhurst	116	5- 9-19
Kerr, W. R.	Nordegg	115	2- 9-19
Murray, James	Coalhurst	90	3- 7-19
Mossey, Thomas	Lethbridge	95	3- 7-19
Makin, J. W.	Hillcrest	103	15- 7-19
Marsh, E.	Taber	113	25- 8-19
Martin, R.	Taber	114	25- 8-19
Pembleton, George W.	Evansburg	97	3- 7-19
Roberts, D. O.	Wayne	86	2- 7-19
Sandino, J. A.	Hillcrest	91	3- 7-19
Stratton, J. M.	Taber	94	3- 7-19
Thompson, T.	Coleman	87	2- 7-19
Turner, J. H.	Coalhurst	89	2- 7-19
Taylor, C. M.	Mountain Park	118	1-10-19
Thomason, C.	Coleman	119	12-11-19
Utlev, Frederick W.	Bellevue	108	16- 7-19
Worthington, W. T.	Edmonton	92	3- 7-19
Williams, W. E.	Beverly	96	3- 7-19
Watkins, J. M.	Taber	106	15- 7-19

List of Names of Holders of Third Class Certificates issued by the Government of the Province of Alberta during 1919.

NAME	ADDRESS	CERT. No.	DATE ISSUED
Arbuckle, John	Mountain Park	263	26- 6-19
Anderson, Peter B.	Mountain Park	264	26- 6-19
Blusson, Joseph T. C.	Champion	253	26- 6-19
Briggs, Alfred J.	Drumbeller	254	26- 6-19
Brennan, John	Long Coulee	261	26- 6-19
Brown, Frank	Coal Creek, B. C.	262	26- 6-19
Birse, Alexander	Coalhurst	268	26- 6-19
Bateman, James	Lethbridge	279	26- 6-19
Bealle, Fred A.	Brule Mines	285	26- 6-19
Ball, Alfred	Natal, B. C.	292	20-11-19
Chambers, Ralph H.	Lovettville	246	26- 6-19
Campbell, Thomas	Lovettville	247	26- 6-19
Conley, Leroy L.	Saunders	260	26- 6-19
Chalmers, James	Edmonton	278	26- 6-19
Carr, Thomas	Nanton	283	26- 6-19
Davies, Jehoiada	Coleman	265	26- 6-19
Dupen, Thomas	Edmonton	275	26- 6-19
Eccleston, Richard	Bellevue	243	26- 6-19
Evans, Thomas O.	Blairmore	244	26- 6-19
Fisher, Ernest	Bellevue	256	26- 6-19
Fraser, Alec	Carmangay	274	26- 6-19
Fraser, James (duplicate)	Big Valley	286	25- 8-19
France, Harry	Nordegg	288	8-10-19
Grant, Donald A.	Hillcrest	242	26- 6-19
Gordon, Thomas	Clover Bar	248	26- 6-19
Green, Henry Victor (duplicate)	Halkirk	291	15-11-19
Higney, John	Coalhurst	245	26- 6-19
Hillary, John	Rosedale	258	26- 6-19
Hopkins, John T.	Coleman	259	26- 6-19
Hunter, James	Edmonton	276	26- 6-19
James, Isaac Augustus	Coleman	252	26- 6-19
Jones, Richard	Nordegg	289	8-10-19
Kirkham, Thomas	Sheerness	284	26- 6-19
Lee, Walter J.	Nordegg	269	26- 6-19
Lindsay, John	Coalhurst	272	26- 6-19
Lindsay, James	Coalhurst	273	26- 6-19
Lawrence, John	Drumbeller	294	1-12-19
Miller, James	Aerial	266	26- 6-19
Miller, John R.	Aerial	293	20-11-19
MacKay, William J. K.	Coalspur	240	28- 1-19
McDicken, James	Coleman	251	26- 6-19
McFegan, Robert	Brule Mines	255	26- 6-19
MacPherson, John M.	Coalhurst	257	26- 6-19
McQueen, George	Nordegg	270	26- 6-19
McDade, John	Drumbeller	290	8-11-19
Poole, Alexander	Drumbeller	241	16- 5-19
Prescott, William	Hillcrest	249	26- 6-19
Richards, Edward	Drumbeller	271	26- 6-19
Rollingson, John	Lethbridge	280	26- 6-19
Ruscoe, Richard	Halkirk	282	26- 6-19
Steen, Herman	Hanna	277	26- 6-19
Scott, Frederick G.	Nordegg	287	2- 9-19
Sippell, Joseph	Drumbeller	295	1-12-19
Thompson, Andrew	Aerial	267	26- 6-19
Thackray, Fred	Taber	281	26- 6-19
Utley, Frederick W.	Bellevue	250	26- 6-19

List of Names of Holders of Mine Surveyors' Certificates issued by the Government of the Province of Alberta during 1919.

NAME	ADDRESS	CERT. No.	DATE ISSUED
Hall, William E. G.	Coleman	143	2- 7-19
Hetherington, William B...	Calgary	144	9- 7-19
Higgins, Alexander	Calgary	145	15- 7-19
Quigley, Daniel H.	Coalhurst	142	2- 7-19
Turner, J. H.	Coalhurst	141	2- 7-19

OUTSIDE DAY WAGES.

The following is the general wage schedule paid at December 31st, 1919:

Occupation.	Rates.
Bottom man	\$5.22
Slate pickers (boys)	3.05
Slate pickers (men)	4.65
Car oilers (men)	4.65
Car oilers (boys)	3.48
Tally boys	3.05
Teamsters	5.22
Blacksmiths	6.43
Blacksmiths' helpers	5.22
Carpenters	6.43
Carpenters' helpers	5.23
Power house engineer	5.83
Hoisting engineer	5.57
Incline engineer	5.83
Tail Rope engineer	6.13
Endless rope engineer	5.70
Box car loader engineer	5.83
Tipple engincer	5.83
Screen engine tender	4.86
Locomotive engineer	5.83
Locomotive switchman	5.36
Firemen	5.22
Fireman's helper	4.86
Railway car handler	4.79
Tipple dumper (men)	5.22
Tipple dumper helper	4.85
Tipple dumper (boys)	3.48
Top Cagers	4.85
Car repairer	5.83
Breaker engineer	5.83
Car repairer's helper	5.23
Lampmen	\$4.65 to 5.22
Machinists	\$5.83 to 6.43
Machinists' helper	5.23
Ashmen	4.65
Coupler (men)	4.65
Coupler (boys)	3.48
Breaker picker boss	5.22
Timber framer	5.83
Timber sawyer	4.85
Box car shoveller	5.22
Breaker platform boss	5.22
Breaker platform men	4.79
Breaker screen men	4.65
Rock bank men	4.65
Dirt bank men	4.65
Stablemen	4.65
Motor truck driver	5.83
Finisher after box car loader	4.65
All other labour	4.65
Steam locomotive engineers	5.83
Motorman	5.53
Lorrymen	4.65
Plasterers	4.65
Carters and cleaners	4.65
All other labour	4.65

INSIDE DAY WAGE RATES.

Occupation.	Rate.
Shot lighter	\$5.70
Bratticemen	5.70
Brattice helper	5.00
Timbermen	5.70
Timbermen's helper	5.00
Motorman	5.37
Motorman's helper	5.00
Locomotive engineer	5.37
Locomotive switchman	5.00
Drivers	5.37
Drivers' spike team	5.96
Couplers (men)	5.00
Couplers (boys)	3.48
Switch boys	\$3.05 to 3.48
Door boys	2.66
Fan boys	\$2.66 to 3.48
Rope riders	5.37
Main and tail rope riders	5.70
Pushers	5.00
Buckers	5.00
Loaders	5.00
Miners	5.70
Rock miners	6.29
Timber handlers	5.37
Cagers, slope and incline	5.00
Cagers, shaft	5.70
Pumpmen	5.00
Pumpmen (Galt Mines)	5.57
Hoistmen	\$5.37 to 5.70
Drivers (boys)	\$3.48 to 5.00
Pipe fitters' helpers	5.00
Machinemen	6.29
Machinemen's helper	5.70
Clutchers	5.70
Rollermen	5.60
Grippers	5.00
Grippers (boys)	\$3.48 to 5.00
Pick carriers	\$3.05 to 5.00
All other labour	5.00

The above rates are all based on an eight-hour day both outside and inside the mines.

